SAFETY NEWS

Your Choice of 3 FACEPIECES and 2 FLOW REGULATORS with efficient, comfortable M•S•A AIR LINE RESPIRATORS

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M•S•A Air Line Respirators are recommended for use in atmospheres not immediately harmful to life, or from which the wearer can escape without the use of a respirator. Write for complete details.

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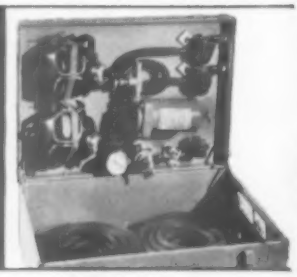
Lightweight, compact unit. Design provides maximum vision. Twin exhalation valves for minimum breathing resistance. Air diffuser prevents blasts. Chemical cartridge filter.



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. . . fit over large-frame prescription glasses

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national Vol. 72, No. 1

SAFETY NEWS

Published monthly by National Safety Council

JULY, 1955

THE COVER: Delray station of the Detroit Edison Company raises the Green Cross for Safety Banner with the Stars and Stripes in recognition of a year without a disabling injury. Photo by Ray Jewett, courtesy *The Synchroscope*.

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THE ACCIDENT BAROMETER

Prepared by the Statistics and Research Division, National Safety Council

THE DEATH TOTAL for March was approximately 6,700, a reduction of 3 per cent from March last year. Most of the decrease occurred in fatal home accidents, but deaths from public non-motor-vehicle accidents also were less numerous. Increases were reported in work and motor-vehicle accident fatalities.

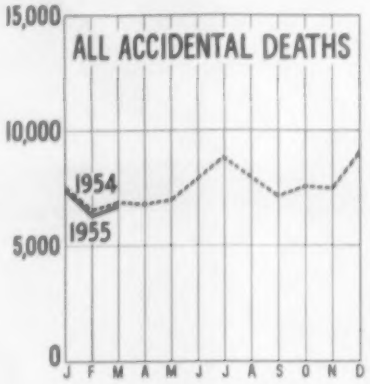
The three-month death total was about 20,300, a reduction of 3 per cent from 1954. Aside from a small increase in work accident deaths, all classes showed some reduction from last year.

Motor-Vehicle Deaths

The March total of motor-vehicle deaths was 2,630, an increase of 4 per cent over March last year. However, compared to 1953, it was a reduction of 5 per cent.

Deaths for the three months totalled 7,800, a reduction of 1 per cent from 7,870 in 1954. The three-month death rate per 100,000,000 vehicle miles was 6.8, a reduction of 8 per cent from the 1954 comparable rate of 6.3.

Of the 46 states reporting for three months, 24 had fewer deaths than last year, 1 showed no change and 21 had increases. Reporting cities with populations of more than 10,000 had a decrease of 2 per cent for March and 6 per cent for the first quarter of 1954.



	1955	1954	Change
March	6,700	6,900	—3%
Three Months	20,300	20,900	—3%

Regional changes from 1954 in the three-month death totals were:

North Atlantic	+ 3%
South Atlantic	+ 3%
North Central	— 3%
South Central	— 5%
Mountain	—15%
Pacific	— 3%

Work Accidents

Deaths from work accidents totalled about 1,200, or 100 more than occurred in March last year. The total for three months was 3,400, an increase of 3 per cent over 1954.

The March frequency rate for plants in eighteen sectional accident prevention contests conducted by the National Safety Council was 5.07, a reduction of 9 per cent from 1954. The March rate for plants in community council contests was 4.63, a decrease of 17 per cent from last year. The three-month rate in sectional contests was 5.45, a decrease of 1 per cent while in community council contests, it was 5.19, a reduction of 12 per cent.

Public Deaths

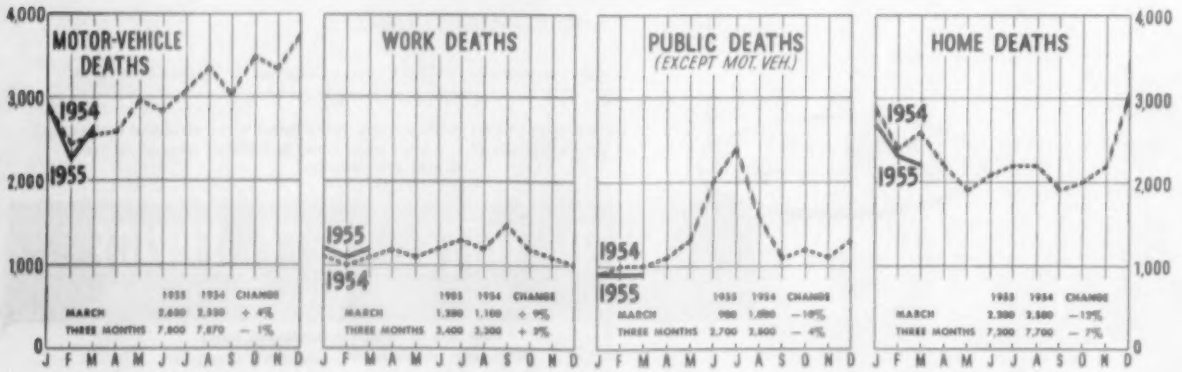
The death total from public non-motor-vehicle accidents in March was 900, a reduction of 100 deaths from last year.

Deaths during the three months totalled 2,700, or 4 per cent less than occurred in 1954. There were decreases in deaths from falls, drownings and burns and small increases in deaths from transportation and firearms accidents. Aside from a moderate increase in deaths of children under 5 years of age, all age groups showed decreases from last year.

Home Deaths

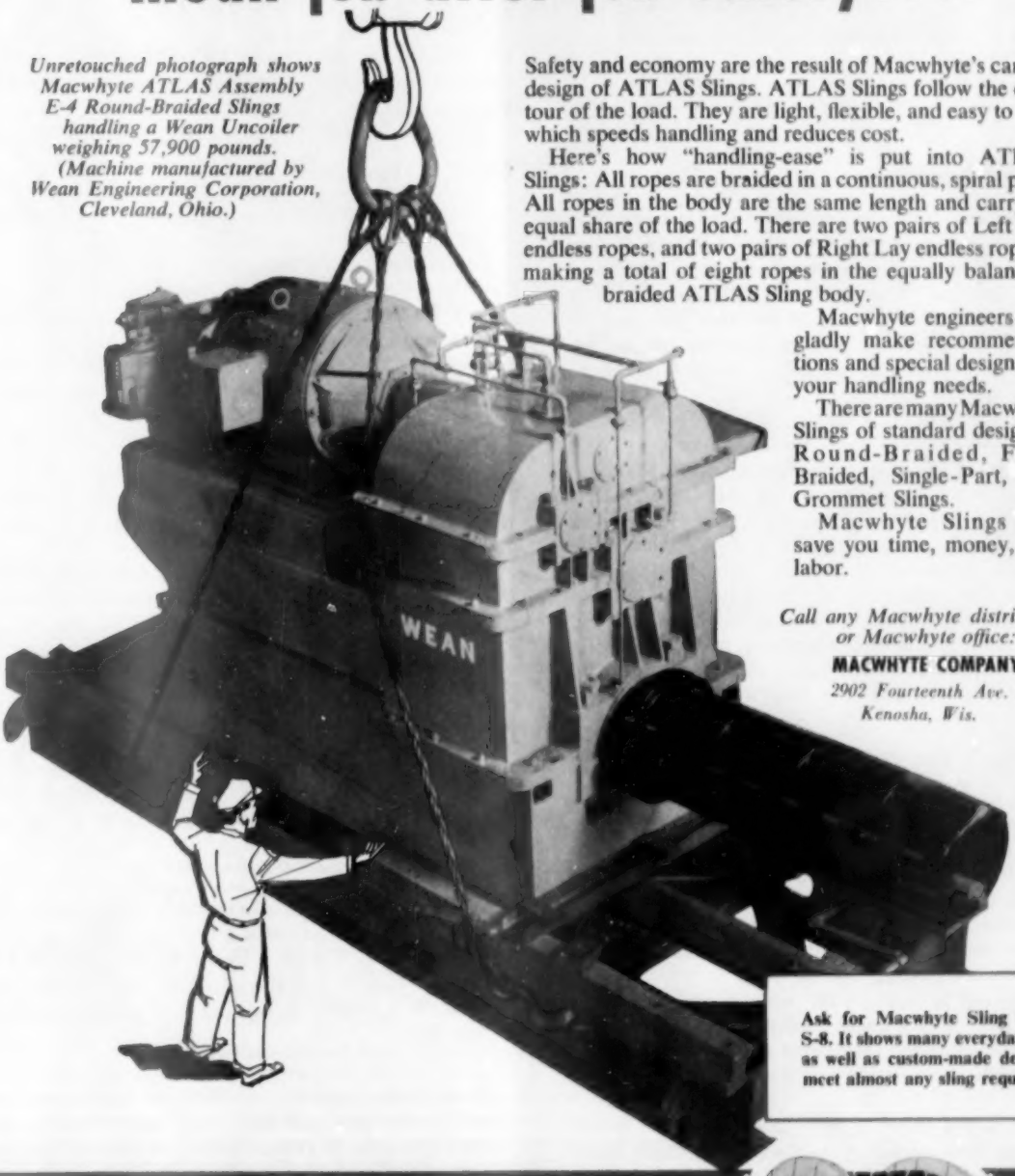
March deaths from home accidents numbered approximately 2,200, or 300 fewer than occurred in March last year.

The three-month death total was 7,200, a decrease of 7 per cent from 1954. Most of the reduction occurred in mechanical suffocation deaths but each home accident type showed some reduction from last year. Decreases were recorded in deaths of children under 15 years of age and persons 15 to 24 and 25 to 44 years old. There was a small increase reported for persons 45 to 64 years of age and no change for persons 65 years and over.



Flexible, lightweight ATLAS Slings mean job-after-job safety...

Unretouched photograph shows Macwhyte ATLAS Assembly E-4 Round-Braided Slings handling a Wean Uncoiler weighing 57,900 pounds. (Machine manufactured by Wean Engineering Corporation, Cleveland, Ohio.)



Safety and economy are the result of Macwhyte's careful design of ATLAS Slings. ATLAS Slings follow the contour of the load. They are light, flexible, and easy to use, which speeds handling and reduces cost.

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Macwhyte engineers will gladly make recommendations and special designs for your handling needs.

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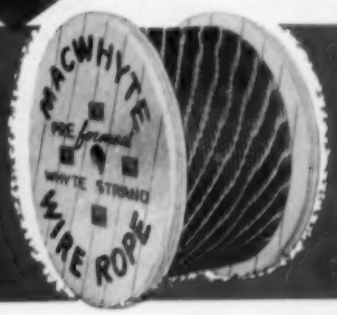

THE SAFETY VALVE

Flags of Freedom

BECAUSE the safety movement is world wide, this publication has avoided nationalistic displays. It has, however, proclaimed prevention of accidents as a real and practical expression of patriotism in both peace and war. So what could be more appropriate than this month's cover picture showing the Green Cross for Safety banner being hoisted with the Stars and Stripes.

By appropriate coincidence, the picture ties in with the national holiday of the United States. Readers in other countries are assured that the NEWS would welcome pictures of the Green Cross being flown with the Union Jack, the French or Belgian tricolor, or the flag of any free nation. The cover spot, however, cannot be guaranteed.

Incidentally, this year the national holidays of Canada and the U. S. A. come at opposite ends of the week-end. The two countries are celebrating different events but both have a problem in common—the accident toll of a long week-end holiday.

All Through the Night

EXCEPT for the war years (World War I, that is) and at brief intervals thereafter, noise hasn't been a major annoyance in my life.

To be sure, I did have a piece on this page some time back about the jets that were roaring through the skies northwest of Chicago, but lately I hadn't noticed it so much. Either aerial activity has subsided or my ears are getting conditioned.

And looking back some 23 years, it was noise that drove us from a city apartment to a quiet suburban spot. Neighbors across the court were making nights hideous with late parties and an out-of-tune player piano.

On our street there is seldom anything to interrupt sleep. But on this year's vacation there were plenty of reminders that civilization is getting noisier.

Back in the village where I grew up, Main Street has been paved and traffic starts before daybreak. In a nearby city, the street on which my sister lives was recently made a through street, which upped the noise level by several decibels.

But the worst assault on our ear drums came the last night of the trip at a pleasant hotel in southwestern Michigan. It's one of the best in the U. S. A., in my opinion. Food was exceptional, the beds comfortable, the personnel unobtrusively friendly, and the whole atmosphere hospitable. The only thing wrong with the place was its location.

The street below was Highway 112. Noise which is tolerable in a motel a few yards off the highway with some open space around it becomes nerve-shattering when a city street acts as a reflector and amplifier.

Probably folks who live in noisy spots get used to it, but there must be a lot of wear and tear on them in the process. More power to the noise abatement people!

The Car You Save . . .

"One of every two new cars sold is in a serious accident some time during its life span," says the Indiana Safety Foundation, quoted by *G. M. Folks.* "Ten of every hundred on the road will be in a crash this year. The best insurance against your car being in one is careful, courteous driving.

"Accidents are not acts of God. Every accident could have been prevented. Most two-car crashes could have been prevented by either driver.

"To stay alive in '55, run your car—don't let it run you."

In This Issue . . .

Everyone in management should take a good look at safety and recognize it as his personal responsibility—that is a capsule summary of Mr. H. B. Haney's comments on a management philosophy of safety. (Page 18)

* * *

Color is more than interior decoration. Principles governing its functional use have been tested in laboratory and plant. This is the second installment of an article by a well-known authority. (Page 20)

* * *

Keeping the audience interested at departmental safety meetings requires a lot of ingenuity; it takes more than talk. Taking a lesson from radio and TV, this plant staged a demonstration that focused attention on a serious operating and safety problem. (Page 32)

* * *

As might be expected, our fictional safety engineer wasn't on his new job very long before he ran into a stock situation in industry—a row with a foreman whose attitude toward safety couldn't be expressed in polite language. But on the basis of past performance, we're betting on the S. E. to have the recalcitrant foreman on his team before the 43rd National Safety Congress rolls around. (Page 36)

Carman Fish

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7) Preformed Windows
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Very important is the quality of the equipment that must protect the eyes and face. FIBRE-METAL *products for protection*, since 1905, have been products of sound experience, strict engineering practice and constant improvement in design. FIBRE-METAL products carry not only our own trade marks but also those of many large producers and distributors of industrial equipment. So, *to be sure*, always ask . . . "Is it a FIBRE-METAL product?"

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BOOKS AND PAMPHLETS

Functional Color

New Horizons in Color, by Faber Birren, Reinhold Publishing Corp., New York, 1955. 200 pages, $10.00.

IN THIS BOOK the same principles of industrial color application are set forth, but in greater detail, as appear in the author's two-part article now appearing in NATIONAL SAFETY NEWS under the title, "This is the Age of Purposeful Color." The book, however, also goes deeply into the underlying history and philosophy of color, with chapters on the Dynamics of Seeing, the Story of Color in Architecture, the Nature of Light, and Color Vision.

Included also is a discussion of systems of color organization, with a description of the author's own mathematical color equation. In this, color is rated according to pure hue and the proportion of white and black admixture, corresponding to the standard terminology of hue, value and chroma—the three "dimensions" of color.

The principal emphasis is on the functional and psychological effects of color in architecture and decoration, and the author makes a strong plea for the use of color to exploit these effects, rather than to serve primarily esthetic considerations.

According to the author, the objectives of functional color in industrial plants, offices, schools, hospitals are improved production; better workmanship; fewer errors, "seconds" and rejected products; relief from eye fatigue and body fatigue in general; lowered accident frequencies; shorter periods of worker training; finer morale and reduced rates of absenteeism and labor turnover; higher standards of plant housekeeping and care of equipment; strengthened labor, industrial and public relations. Modern thinking certainly tends to the belief that all these objectives may be served by correct application of color.

L. W. DUTTON

Aeronautics

Safety Through Steep Gradient Aircraft. R. M. Woodham and Jerome Lederer, Daniel and Florence Guggenheim Aviation Center, Cornell University, 471 Park Ave., New York 22, N. Y., 1955, 75p.

Fire Protection

Radiation and Monitoring Fundamentals for the Fire Service. International Association of Fire Chiefs, 1955, revised edition, 72p.

Safety Code for Inspecting, Recharging and Maintaining Portable Fire Extinguishers. Fire Equipment Manufacturers Assn., 813 Clark Bldg., Pittsburgh 22, Pa., 1955, 12p. 50c.

Noise

Occupational Impairment of Hearing—A Legal Survey. Industrial Hygiene Foundation, 4400 Fifth Ave., Pittsburgh 13, Pa., 1955, 17p. $1.00.

Plastics

Fire Hazards of the Plastic Industry. National Board of Fire Underwriters, 85 John St., New York 38, N. Y., revised edition, 1955, 70p. N.B.F.U. Research Report No. 1. Free.

Psychology

The Human Element in Industrial Accident Prevention. John C. Larson. Center for Safety Education, New York University, Washington Square, New York, N. Y., 1955, 114p. $2.00.

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Air Pollution

Remedial Measures in Air Pollution Which Have Been Taken by an Industry. Including a Discussion of Costs. Virgil E. Gex. American Journal of Public Health, May 1955, p.622.

Eyes

Conservation of Vision. William J. Niederauer. Supervision, 1955, p.21.

Fire Protection

Fire Protection for Chemicals—Part 4. Charles W. Bahme. Quarterly of the National Fire Protection Assn., April 1955, p.403.

Handling Materials

Automation Brings—Safety, Speed, Space, Saving, Quality. William Newberg. SAE Journal, May 1955, p.29.

Health

Dermatoses Due to Oils Used in Industry. Journal of the American Medical Assn., April 30, 1955, p.1611.

Medicine in Industry. Harold A. Vonachen. Journal of the American Medical Assn., April 30, 1955, p.1592.

Labor Unions

Union Stake in Accident Prevention. Peter J. Bernard. The Graphic Arts Monthly, May 1955, p.34.

Legislation

Safety Legislation. Sponsored in Congress. The Constructor, May 1955, p.83.

Noise

Cut Down the Noise in Your Plant—Improve Efficiency of the Worker. George Ransom. The Inland Printer, May 1955, p.44.

Quiet, Please. Albert E. Bachmann. Harvard Business Review, May-June 1955, p.68.

Radiation

Hazards of Radiation. Paul W. Greeley. Industrial Medicine and Surgery, May 1955, p.227.

Railroads

Dermatitis in the Railroad Industry. John B. Haeberlin. Industrial Medicine and Surgery, May 1955, p.225.

Small Plants

A Workable Small Plant Safety Program. Agricultural Chemicals, May 1955, p.33.

Trucks

If You Are Switching to LP-Gas for Your Industrial Trucks. Factory Mutual Record, May 1955, p.3.

Vacation: A trip to put you in the pink that leaves you in the red.

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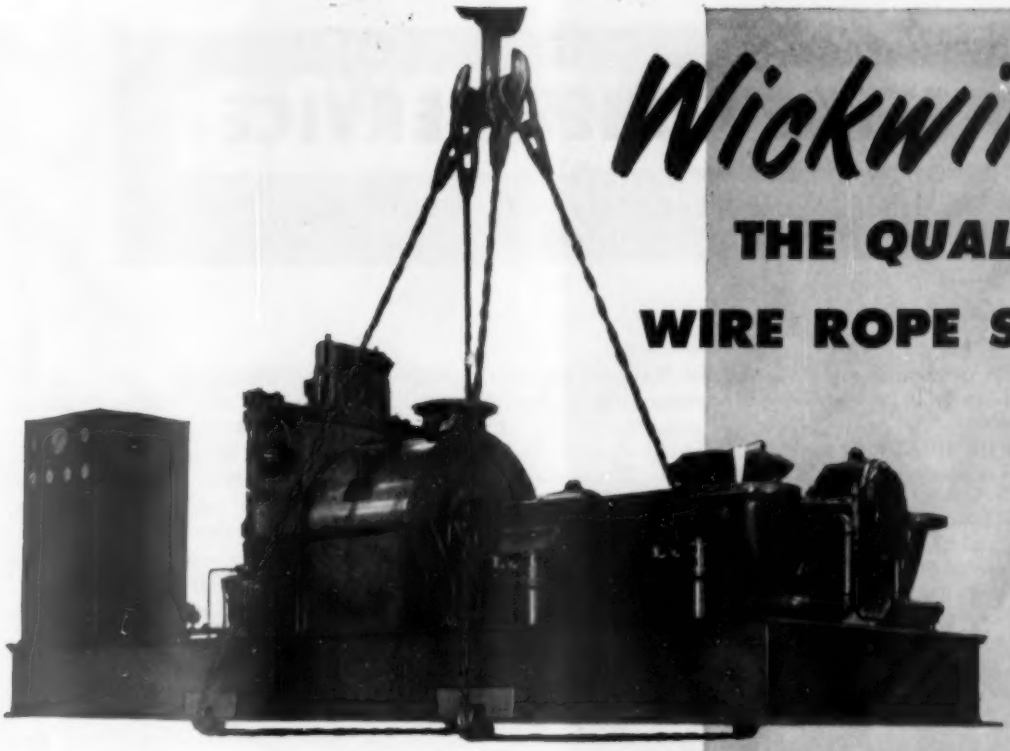

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National Safety Council Awards for Outstanding Records

THREE TYPES of awards are given by the National Safety Council to industrial units in recognition of outstanding performance in accident prevention:

1. THE AWARD OF HONOR is available to units whose records, though not perfect, meet rigorous standards of excellence. These standards take into account the previous experience of the unit as well as the experience of the industry in which it operates. A unit must qualify on both frequency rate and severity rate. The Award of Honor is available also to units which complete 3,000,000 man-hours without a disabling injury.

2. THE AWARD OF MERIT has similar, but less exacting requirements. Minimum number of injury-free man-hours needed to qualify is 1,000,000.

3. THE CERTIFICATE OF COMMENDATION is available only for injury-free records covering a period of one or more full calendar years and totaling 200,000 to 1,000,000 man-hours.

Details of eligibility requirements may be obtained by writing to the Statistics and Research Division, National Safety Council.

AWARDS OF HONOR

Convair—a division of General Dynamics Corp., San Diego Div.

General Electric Co., Fort Wayne, Ind., Special Component Motor Dept.

Jones & Laughlin Steel Corp., Wire Rope Div., Muncy, Pa.

North American Aviation, Inc., Columbus, Ohio, Plant.

Radio Corp. of America, Camden, N. J., Plant.

Western Electric Co., Two awards: Hawthorne Works, Chicago; North Carolina Works, Burlington, N. C.

AWARDS OF MERIT

Bethlehem Steel Co., Three awards: Bridgeport Quarry, Marmora Mine, Fairfield Plant.

American Can Co., Houston Factory, 42a.

American Steel and Wire Div., United States Steel Co., Donora Steel and Wire Works.

Blaw-Knox Co., Lewis Machinery Div.

Continental Can Co., Plant 37, Harvey, La.

Crucible Steel Co. of America, Park Works.

General Electric Co., Two awards: Ontario, Calif. Plant; Plastics Dept., Decatur.

Norton Co., Worcester, Mass., Entire company.

Quebec Iron and Titanium Corp., Sorel Que., Smelting Unit.

Rheem Manufacturing Co., Sparrows Point Plant.

Westinghouse Electric Corp., Atomic Power Div.

CERTIFICATES OF COMMENDATION

Bernheim Distilling Co., Two awards: George T. Stagg Co., Bardstown and Lebanon, Ky.

Consumers Cooperative Assn., Phillipsburg, Kans., Refinery.

E. I. du Pont de Nemours & Co., Four awards: Burnside Laboratory, Fairfield Plant, Louviers Works, Memphis Plant.

Jos. S. Finch & Co., Cedarhurst, Md.

Ford Motor Co., Eleven awards: Atlanta Parts Depot, Cincinnati Parts Depot, Cleveland Parts Depot, Dallas Parts Depot, Denver Parts Depot, Dundee Plant, Memphis Parts Depot, Milford Plant, Seattle Parts Depot, Virginia Parts Depot, Waterford Plant.

General Mills, Inc., Six awards: Belmond, Ia.; El Reno, Okla.; Duluth Elevator; Research Farm, Detroit; Great Falls, Mont.; Ogden, Utah.

Louisville Cooperage Co., Chess & Wyman & Co.

Pillsbury Mills, Inc., Three awards: Centerville, Ia.; Culver City, Calif.; Lima, Ohio.

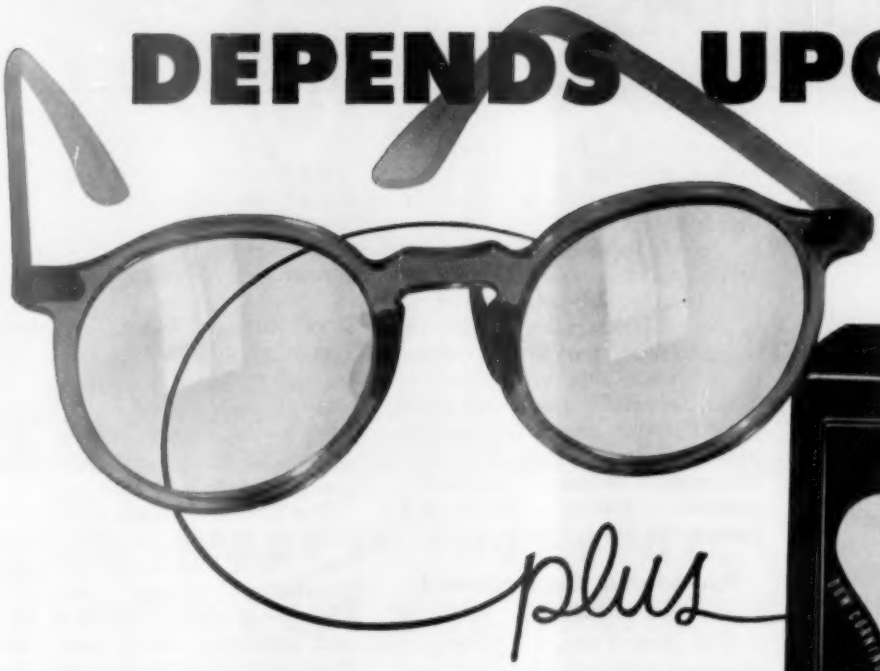
H. C. Price Co., Spread No. 2.

Joseph E. Seagram & Sons, Inc., Four awards: Calvert Distilling Co., Pine Bluff, Ark.; Blair Distilling Co., Saint Francis, Ky.; Old Farmers Distillery, Athertonville, Ky.; Calvert Distilling Co., Lawrenceburg, Ky.

Victor Chemical Co., Tarpon Springs, Fla.

When the 5,500 employees of the Naugatuck, Conn., footwear plant recently passed the previous record for safe man-hours in the rubber industry with a total of 7,801,624, a group representing management and employees posed for this picture. "Everybody won it," said W. E. Bittle, Jr., as they held up the record-breaking numerals.

EYE SAFETY DEPENDS UPON



Install SIGHT SAVER Cleaning Stations and wipe away the best excuse men give for not wearing safety glasses!

Used and preferred by millions, Dow Corning SIGHT SAVERS are the quickest, easiest way to clean and polish eyeglasses. Scientifically treated with the right amount of the right kind of Silicone, SIGHT SAVERS reduce accidents and rejects by making it easy to keep glasses clean. Specified by hundreds of Safety Directors and installed in thousands of plants, SIGHT SAVER Cleaning Stations keep safety glasses safe! No muss, no fuss, no waste; easy to install and maintain.

Dow Corning SIGHT SAVER cleaning stations are available from leading Safety Supply Houses.

MAIL COUPON TODAY for Distributor Listing

DIRTY GLASSES . . . *like dim lights and dull tools* **are dangerous and inefficient.**

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Company _____

Address _____

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Catalog No. 60 . . . . . (Black)
Catalog No. 61 . . . . . (White)
Catalog No. 62 . . . . (Safety Green)
each $2.50
Refill Packets . . . . (Catalog No. 65)
each $1.45

SMALL BUSINESSES and ASSOCIATIONS

By A. M. BALTZER and ROBERT D. CURRIE

Small Business Program Staff
National Safety Council

Small Employer Speaks

At the Greater New York Safety Conference John Biehl, member of our Small Business Committee and Secretary-Treasurer of Jabez Burns & Sons, Incorporated, New York, described the effective safety activities of his firm. With approximately 100 employees, this manufacturer of coffee roasting equipment has an enviable safety record and, although they have no professionally trained safety man, the firm is proud of excellent management support of its activities.

We particularly liked Mr. Biehl's emphasis on "tailor made" activities. For a small firm they do a surprising amount of personalized and specific work. For example, vacation booklets reach employees the week before their vacations. They are alert to commend employees for safety suggestions and they make every attempt to avoid "doling out" safety material for no apparent reason.

This personal approach illustrates one advantage that the small firm has over the large corporation. It is one of the things that the small employer can do to demonstrate his interest in the employees' welfare, thereby supporting his safety work and boosting employee relations.

Accountants Discuss Accident Costs

The *Milk Industry Foundation* has developed a package safety program for both plant and fleet operations but believes in hammering at the accident problem at every opportunity. At the spring meeting of accountants of the MIF North Central Region we had the opportunity of presenting a chart talk dealing with the costs of accidents in the fluid milk industry and explained how other industries had improved their position while this industry remained more or less static.

The Foundation is definitely interested in stimulating the interest of its members through safety talks at all conventions and through frequent bulletins.

We are helping the Foundation to stimulate the awareness of their members in a considerable plant, fleet and public safety problem. Through a jointly-sponsored plant and fleet contest plus other cooperative ventures a successful program is merely a matter of a little more time.

Down-Down Go Frequency Rates

The *Steel Founders Society of America* is proud of a 50 per cent cut in their members' injury frequency rates in the last ten years. The association's complete program has resulted in the following savings:

Foundry A—300 workers—frequency dropped from 41 to 23 in five years—a saving of $2,000.00 a year.

Foundry B—frequency rate dropped from 30 to 7 and paying less compensation than five years ago although manual rates are 60 per cent higher.

Southern Accent on Safety

The *Mississippi Manufacturers' Association*, on May 23, concluded the eighth and final one-day regional safety conference of the year. Over 50 owners and supervisors of small firms attended the session which included a plant tour of the Flintkote plant at Meridian, an exhibit of safety equipment, safety films, several safety talks and a Safetygraph demonstration on the value of visual aids to teach safe handling of materials.

The Association's program has been widely publicized and other regional meetings were even better attended. The Association plans to extend its influence into the non-manufacturing field and cooperates with local Chambers of Commerce to attract a high percentage of small companies.

Small Business Grant Renewed

The National Association of Mutual Casualty Companies, which has supported our program since its inception four years ago, announced the renewal of its grant as of July 1, 1955.

The Council sincerely appreciates the Association's contribution, which makes this program possible, and wishes to acknowledge the generous amount of time and guidance which has been given us by the Association's Engineering Committee and Staff.

As Maine Goes

The *Associated Industries of Maine* directed a recent mailing to small employers illustrating the importance of accident prevention in reducing insurance losses. The bulletin listed seven hidden or indirect accident costs —all of which are familiar to readers of the NEWS but which undoubtedly introduce a new idea to many small members of AIM.

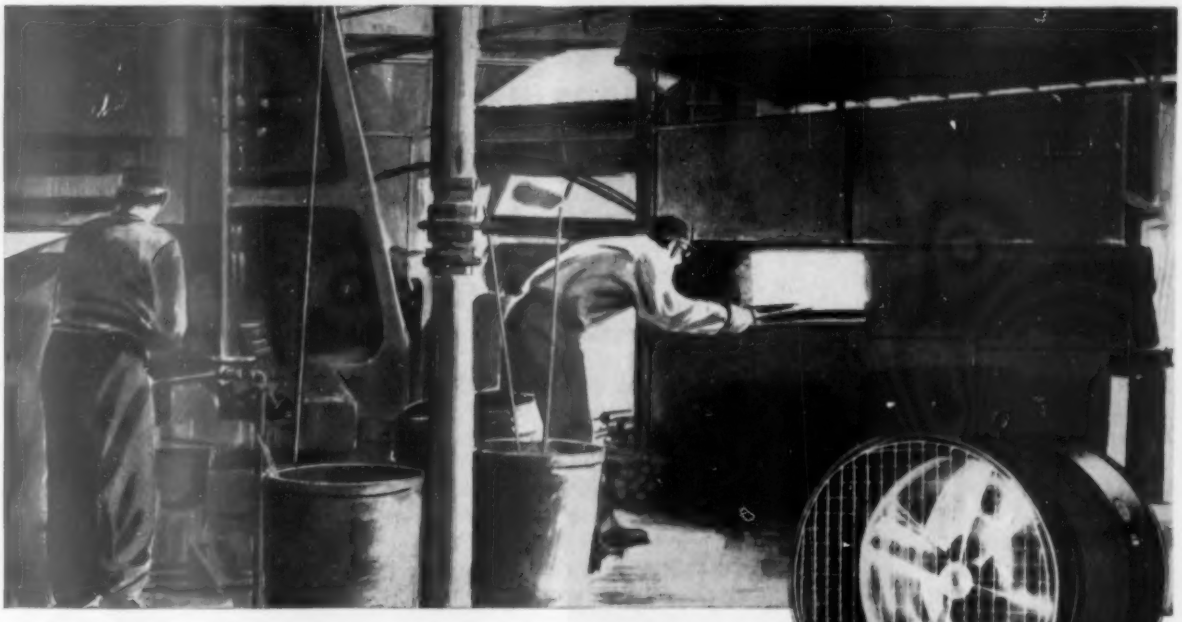
Safety conferences are scheduled for Bangor, Augusta and Portland, Maine during June with emphasis placed on the importance of accident prevention in reducing costs and increasing production.

This state activity is encouraging and we hope that many more states will follow the example set by Associated Industries of Maine.

Safety Goes to School

The First Annual Industrial Safety Course was held May 18-20 at Purdue University with 35 supervisors and safety men attending. The two and one-half

—*To page 117*



COOL HEADS IN "HOT SPOTS" WON'T LET YOU DOWN

On jobs where the air is foul or hot, men can't be blamed too much for letting up now and then. If you want to keep their efficiency and morale high, feed them better air.

Employers have learned the value of putting Coppus Blowers and Ventilators on the job . . . in confined areas and near furnaces or hot processes. The men work faster, do better work, work longer without fatigue — and appreciate the more comfortable working conditions.

Give some thought now to the "hot spots" in your plant. There is a Coppus Blower for practically any requirement — Cable Manhole and Tank Ventilators, Boiler Manhole Blowers and Exhausters, Heat Killers, Shiphold Ventilators, etc. The Coppus "Blue Ribbon" is your assurance of design and construction planned for plenty of severe service. Check and mail the coupon for specific information. Coppus Engineering Corp., Worcester 2, Mass. Sales Offices in THOMAS' REGISTER. Other "Blue Ribbon" Products in BEST'S SAFETY DIRECTORY, CHEMICAL ENGINEERING CATALOG, REFINERY CATALOG.

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COPPUS
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COPPUS ENGINEERING CORP., 127 PARK AVENUE, WORCESTER 2, MASS.
Please send me information on the Blowers that clear the air for action.

- ☐ in tanks, tank cars, drums, etc.
- ☐ in underground cable manholes.
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- ☐ on coke ovens.
- ☐ on steam-heated rubber processes.
- ☐ on boiler repair jobs.

COOLING:

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- ☐ wires and sheets.
- ☐ general man cooling.
- ☐ around cracking stills.
- ☐ exhausters, welding fumes.
- ☐ stirring up stagnant air wherever men are working or material is drying.

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COMPANY.....

ADDRESS.....

CITY.....

(Write here any special ventilating problem you may have.)

Wire from WASHINGTON

By HARRY N. ROSENFIELD
Washington Counsel, National Safety Council

SAFETY, in one form or another, figured in the actions of the President, the Executive Departments, the Congress, and the Supreme Court, as well as in international organizations of which the United States is a member.

Industrial Safety. The President scheduled the next biennial President's Conference on Occupational Safety for Washington, D. C., May 14-16, 1956, to devise cooperative means of further reducing occupational deaths and injuries.

The Senate passed S. 928, to amend the Water Pollution Control Act so as to provide for the control of air pollution. As amended, this bill promotes cooperation between the Federal government (operating through the Public Health Service) with states, municipalities, and private agencies, for the study of methods of preventing and eliminating air pollution. The bill would authorize an appropriation of $15 million over a five-year period, establish an Air Pollution Control Advisory Board to review the policies and programs of the Surgeon General and make recommendations to him, and would authorize grants-in-aid to states and to educational institutions.

The Senate also passed S. 2126, a housing bill. Title V of this bill inaugurates a program authorizing the Secretary of Health, Education and Welfare to undertake a research program to determine the causes and effects of air pollution, to develop devices to prevent and eliminate it, to provide assistance to states and local communities, and to make research grants to public and private agencies. The Administrator of the Housing and Home Finance Agency would be authorized to provide financial assistance to business to purchase or construct air pollution control equipment. There is no statutory limit on the funds which, subject to appropriation, can be so expended.

A subcommittee of the Senate Public Works Committee reported favorably on S. 890, to extend and strengthen the Water Pollution Control Act.

The Department of the Interior reported favorably on the passage of S. 483, for temporary measures of flood control and anthracite mine drainage.

The Supreme Court of the United States, in *Carroll v. Lanza*, decided June 6 that when an employee was injured in an accident, the law of the state where the injury took place, rather than the law of the residence of the employee and employer, prevails with respect to the nature and extent of the employee's legal rights to sue for damages.

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They Hit the Safety Jackpot

Safety paid off to 15 men in the pulp and paperboard mills of Fraser Companies, Limited, at Edmundston, N. B. at the recent quarterly safety drawing sponsored by the company. They won prizes ranging from a vacuum cleaner, chest of silver, electric drill to a camp stove, electric kettle, and carving set.

The drawing is held every three months and is open to all non-supervisory personnel. However, if a man suffers a disabling injury in the quarter, he and the members of his crew are not eligible for that drawing. Fifteen prizes with a total value of some $400 are provided each quarter.

During the first three months of this year there have been no disabling injuries in the mills. Hence, all men participated in the drawing.

"Janitors can be efficiency experts, too."

IF they follow this fellow's example. He knows that with a SUPER WESTONE treated mop he can control dust and beautify his floors — just as fast as he can walk.

SUPER WESTONE actually cuts the cost of floor care.

— loosens and picks up dirt more readily.

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SUPER WESTONE is *antiseptic*.

— arrests the growth of bacteria.

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AND SUPER WESTONE is safe to use on any floor surface. No fire hazard exists, because it can be mixed with water. And no residual "build-ups" are left on floors.

A WEST representative will be glad to demonstrate. Without charge. Or send for our SUPER WESTONE folder.

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☐ I'd like a free copy of your folder on controlling bacteria and dust with SUPER WESTONE.

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TALK ABOUT "CHEMICAL" SAFETY SHOES!

HY-TEST *has them!*

OXFORD...BLUCHER...AND 8" BOOT

H212 . . . Brown Rosite Plain Toe Oxford; brown Resist-Oil Grit sole and whole heel. A semi-dress style yet sturdy in wearability.

H979 . . . Black Rosite Plain Toe Blucher; black Resist-Oil (Neoprene) sole and whole heel. The "good ole" stand-by for many workers.

H996 . . . Black Rosite Plain Toe 8" Boot; black Resist-Oil (Neoprene) sole and whole heel. Here's the boot for rugged, dependable service.

Specially made to resist chemical action, these three numbers (the oxford is our latest) fill a very specific need in many industries. The oil and acid-resisting sole and heel, treated upper, storm welt and complete Dacron stitching combined with the famous Anchor Flange® steel box toe, Bol Tan sweat-resistant leather insoles and other important HY-TEST Standards of Quality, give workers the tough, long-wearing features they expect. You can't go wrong when you specify H212, H979 and/or H996.

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Buy HY-TEST and Get the Best!

national
SAFETY NEWS
JULY 1955

Reverence for Life

ON MALABAR FARM Louis Bromfield found what he calls the life of the complete man. Countless other farmers who haven't written books have felt the same way.

From his experience of 15 years Bromfield has found one attitude that sums up what farming taught him. It is what Albert Schweitzer calls "reverence for life." Good farming brings a man closer to understanding the universe; it gives him a sense of belonging to something vast but infinitely friendly.

But the farmer's world has its unfriendly side. The lives of the family and the savings of a lifetime are often at the mercy of wind and lightning.

The elements are not the only menaces to life. Agriculture has always been a hazardous occupation, even before the mechanical age. Domestic animals, falls, hand tools, and primitive machines have been claiming their victims for centuries.

These risks have been more serious because of the isolation of the farm and its remoteness from medical and fire protection services. The telephone, the automobile, and paved roads have, it is true, reduced this isolation but communications can be interrupted by weather at critical times.

Mechanization has lightened labor and removed some hazards, but it has also introduced new ones. Tractors have almost crowded the horse out of the picture but temperamental breeding animals are still needed.

The modern farm can be run with fewer hired men than in grandpa's time but the hands need more skill. Driving a truck, repairing machinery, and milking several cows when the power for the milking machine is off are all in the day's work.

Farming, in spite of growth of corporate agriculture, is still largely a family enterprise. From farm families come many leaders in business and the professions as well as those who continue to operate the farms. The value of farms to a nation goes far beyond the crops produced.

Accident prevention on the farm, therefore, has a strong human appeal as well as far-reaching economic value. Sponsored jointly by the United States Department of Agriculture and the National Safety Council, National Farm Safety Week has been proclaimed each year by the President of the United States and supported by industries, governmental agencies, farm organization and by press, radio, and TV.

This year Farm Safety Week will be observed July 24-30. Its theme will be "Your Safety is in Your Hands." That message, directed to farm people everywhere, will carry an appeal to make a safety inventory of buildings, equipment, work habits, and attitudes.

Management Believes . . .

By H. B. HANEY

Calm judgment, reasoned science and practical wisdom are ingredients of safety philosophy

TO UNDERSTAND the meaning of "management safety philosophy," let us break the phrase down and define the words separately.

"Management" is the group or individual charged with managing and directing an organization or activity, whether it be a world-wide corporation or a neighborhood tailor shop.

And what is "philosophy?"

We are told that it is love of wisdom, the search for wisdom. It is demonstrated by calm judgment, reasoned science, and practical wisdom. Just as there are general laws that furnish the rational explanation of anything — law, medicine, government — there is a philosophy of safety.

Safety is one of the responsibilities of management. Companies are responsible to the state and federal governments under which they operate. They are responsible to their customers for good products at reasonable prices. They are responsible to the communities in which they have plants to operate those plants so that both management and employees will be considered good citizens and that their operations will not endanger or harm the communities. They also have responsibilities to their employees —to provide safe working conditions and to see that the proper tools are provided to do their jobs safely.

Keeping these responsibilities in mind, why should management support an accident prevention program? There are three big reasons:

First, accidents cost money—not only to the men directly involved in terms of lost time, medical expense, and shock, but also to the employer in materials damaged, time lost from productive effort, and goods not produced. The incidental loss to the employer is estimated to be about four times the direct cost of the accident itself.

Secondly, consider the field of public opinion. No one wants to work—nor does his family want him to work—in a plant or an industry which is dangerous. Plants with a reputation for being too dangerous—where insufficient attention is paid by management to an effective safety program—have trouble recruiting satisfactory employees.

Third, the laws of many states require an accident prevention effort, either through direct statutes or indirectly as in industrial compensation laws.

Some General Principles

Before any safety program can get off the ground, management must wholeheartedly support certain general principles.

- It is up to management to lead—not drive—employees into good safety practices. In cases of flagrant resistance people must be made to want to practice safety and a little driving is indicated.
- No program can succeed if the leadership fails to demonstrate interest. This can't be done by mere words and pieces of paper; it takes action to show employees that management believes in and is interested in accident prevention.
- A safety program must have a carefully prepared program. Suggestions should be solicited and, once the plan is set, it must be backed with fervor by all of management.
- The responsibility for any real safety program rests with the first line supervisors and foremen. These are the men who carry it out, who apply the principles objectively, and who are criticised in the event of failure.
- The knowledge and experience of the safety engineers and specialists should be welcomed and applied. No vice president sitting in an office a hundred miles away can dictate the safety features of a specific job, nor will it always be possible to be guided by the book. The ability to improvise is very important.

* * *

After the general principles of the safety plan have been decided, there are certain specific

H. B. HANEY is vice-president and division transportation manager of the Tide Water Associated Oil Company, San Francisco. This article has been adapted from an address at the Third Annual Regional Safety Conference of the Western Oil and Gas Association, Berkeley, Calif., June 1-2, 1955.

steps a company should include in putting the plan in action.

Find the problem. Determine how many back injuries, for example, Plant A incurs in a year. How many of them were caused by improper equipment? How many by improper actions? No one can plan a practical accident prevention program until he knows what he's up against.

Organize the program. A sound organization must be arranged to carry out the policy. No one man can do it all, so the responsibilities must be clearly defined and adequate authority to do the job parceled out to every man in the line.

Keep accurate records. Only if an accurate, standardized recording system is set up can management know if the safety program is getting anywhere. Facts must be gathered and recorded as accidents or injuries occur. This will provide comparable information on similar functions in the plant and in other plants in the same company, same industry, and in all industries.

A good safety program must gather facts, information, and statistics not just for the fun of gathering a lot of numbers, but because the numbers tell us something. They tell us what sort of actions to avoid. They enable us to measure how effective we are, how much good we're getting out of the things we're doing, the time we're putting into safe actions.

Safety is a pretty tenuous thing. It's not like the apple you can see on a tree. Safety is the absence of injury or damage. It's the prevention of something, not the happening of something. A good program can stir up interest in safety on the part of every man in the plant or office. It can personalize safety so that doing things the safe way becomes a firm part of his life, at work and at play. Every sensible improvement, every exercise of caution will inevitably help someone.

A good safety program can prevent economic waste. This isn't just a statistic. Waste is lost manpower laid up with a broken leg. Waste is broken machinery—it is men standing around while their neighbor is lugged off to the hospital with his head streaming blood because he didn't wear a safety hat.

Safety can increase production. Experience in industry indicates that the safe plant is the producing plant. Surely no one can contradict the statement that the safe way of doing a job is the best way, and the best way turns out the products.

A good accident prevention program is of immeasurable help in creating and maintaining good employee relations. The man working in a safe plant is much more likely to be happy with his company and his job. The community which knows that the plant is safe will willingly provide the men to work there. The wife whose husband works under safe conditions will send him off each morning with a smile on her lips, knowing that he'll come back that night in one piece. The reputation that a factory is safe is one of the best drawing cards it can have.

A good safety program must be self-supporting. This doesn't mean that it has a product to sell, but it isn't worth much if it doesn't pay its own way by reducing losses. If the broken implements, the time lost through injuries, the money paid out for time not worked, and the medical expenses for injuries which shouldn't have happened are not reduced—if the program isn't self-sustaining in the long run—it is worthless.

Everyone in management should take a good look at safety and recognize that it is his personal responsibility, that he can and *should* do something about it. Only then will we realize that accident prevention is not just words, or dreams, or theory, but something very practical for every one of us. We want to work under safe conditions and we're the ones who've got to make it that way.

You're Only Human

How many people get hurt merely because they get falsely overimpressed with their human capabilities when surrounded by the marvels of modern engineering?

Take the young lad in the blitzed-up hot rod—or the older fellow in the new triple-toned super-powered job. They feel pretty important when behind the wheel, and this feeling of importance tempts them to take chances they or the car are not physically or mechanically up to—despite all the gadgets. These new autos are so easy to drive, we forget that a good driver must have or develop certain abilities. Reaction ability, judgment of speeds and distances, good vision, et al.

Take the new high powered fully or semi-automatic machine tools. They are so easy to operate, with so many automatic features, that instruction and training on them is many times too brief to properly prepare a human being to adequately cope with them.

I wonder if we ordinary type human beings are quite keeping up with the designers these days?

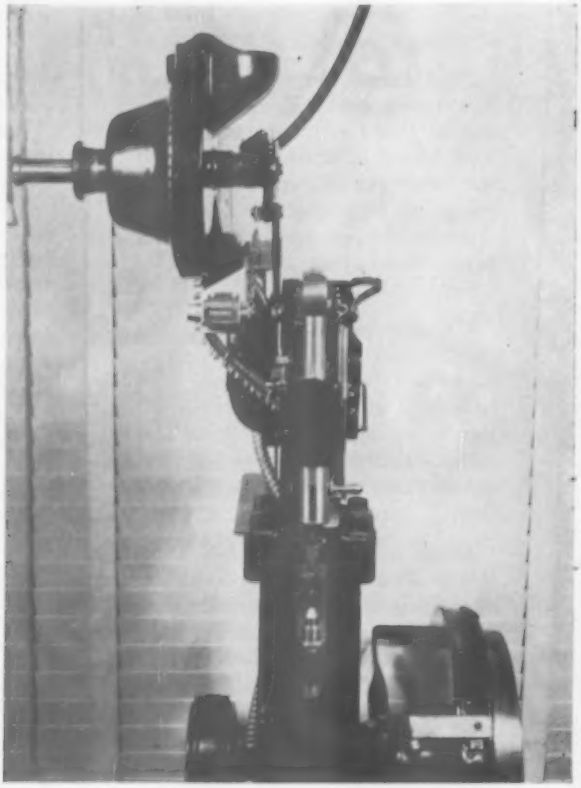
Our reflexes, reactions, and mind functions are not quite as definite and positive and ever exactly repetitious as these mechanical or electronic devices. If we let our minds or thoughts wander while traveling 60 miles per hour—or while operating a high speed tool—there's no gear, cam, or micro-wave timing device hooked up to us to keep us out of trouble.

Yes, if we expect to make like atomic-age type citizens—and keep our heads while all about us is being made automatic and more powerful—we are going to have to realize we are only human, and allow for our weaknesses.

ROBERT D. GIDEL

BEFORE:

A riveting machine before it received the color treatment. While the human eye can penetrate shadows better than the camera lens, poor visibility increases fatigue and hazard to the operator.



This is the age of Purposeful Color

Part II—How Color Cuts Accidents

By FABER BIRREN

UNTIL World War II, the average American industrial plant had inadequate illumination, virtually no color, and its use of color for safety purposes was haphazard. The traditional use of red as a symbol of danger was applied in some instances—a poor choice since about 10 per cent of male industrial workers are color blind.

Today, thanks to more protection, improved training and supervision, and better use of light and color, the accident frequency rate in the United States for all industries is 7.44—about half the 1935 rate of 13.11.

The introduction of a comprehensive color code, plus active safety supervision and training, helped the 38,000 employees of the New York Board of Transportation achieve a drop of 42.3 per cent in accident frequency—the equivalent of an annual saving of more than $500,000.

In a three-year period, the U.S. Navy cut its accident frequency 28 per cent, from 6.4 to 4.6—a saving of more than $1,400,000 a year. A steel company reported a drop of more than 75 per cent; a chemical company, a reduction of 65 per cent; a U.S. Quartermaster Depot, a drop of 48 per cent.

While these savings can not be attributed solely to a safety color code, the code in each instance was the chief feature of the accident reduction effort.

Better Lighting Helps

Illumination, too, is important. Two British studies in the printing industry show an accident frequency reduction of 54 per cent and 11 per cent, respectively, when levels of illumination were raised. Higher light levels were partially responsible for a 32 per cent accident reduction in a large American plant. Accidents on stairways and transfer points in New York subway stations were cut in half when more and better lighting was introduced.

It was estimated in Part I of this series that good illumination and color in industry have a cash value of $139.25 per worker per year in increased productive efficiency and capacity. What is the comparable value for decreased accidents?

Using the Navy's figure of a 28 per cent reduction in accidents and assuming a decrease in frequency rate from 10.35 to 7.44 (the average for all U. S. industries), the annual saving per worker comes to $9.17. This is based on accepted accident costs as determined by the National Safety Council and casualty insurance companies.

This means that industry stands to save a total of $148.42 per worker per year as a result of better illumination and color. Not included in this figure, of course, are the humanitarian benefits of physical security, preservation of

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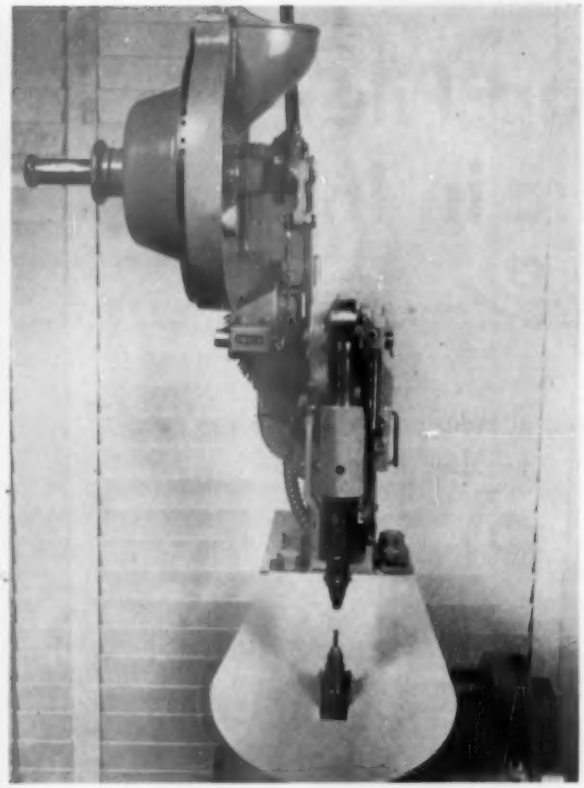
This is the second installment of a two-part article adapted from a talk by FABER BIRREN before the First World Congress on the Prevention of Industrial Accidents held in Rome, April 2-6, 1955, at the request of the U. S. Department of State. Mr. Birren, of the New York firm of Faber Birren & Co., is a leading authority on the functional use of color and the author of numerous books and articles on this subject. Part I, which dealt with color's influence on efficient operation, appeared in the June issue.



AFTER:

The riveting machine after the point of operation had been spotted by functional use of color and the addition of a shield.

human skill, mental and emotional well being, and an improved standard and dignity for human labor.

Color Code for Safety

The Birren-DuPont Color Code for Safety, adopted by the ASA in 1953, recognizes six colors and accompanying symbols, plus black, white, and gray for miscellaneous marking. Because of the high incidence of color blindness, care was used in selecting hues not likely to be confusing. For example, red, the former danger symbol, is reserved exclusively for the identification of fire protection equipment. This use of red is required by many laws in the United States.

The code uses brilliant colors only where hazards are involved. All frills and decorations are avoided. Soft, functional colors on walls and machinery, with dangers clearly marked in gaudy hues, establishes order and gives significance to any color distraction.

High-Visibility Yellow (black and yellow striped symbol). Yellow has the highest visibility in the spectrum. Distinguishable under dim light, it is used for strike-against, stumbling, falling and tripping hazards. By itself, or with alternate black stripes, it is applied to guard railings, transportation equipment, pit and platform edges, curbings, obstructions, dead-ends, low beams, barricades, bumper plates, crane beams and cabs, loading buckets, floor pan edges, floor and stair risers and elevation changes, ladders, movable platforms, and stands.

To caution against eye hazards such as sparks, flash burns and flying particles, the Navy uses a black and yellow checkerboard on signs, screens, doors and door jambs.

Despite convention, it is good practice to use High-Visibility Yellow for containers of flammable liquids, such as kerosene, gasoline, naphtha, alcohol and solvents, and to label the container with conspicuous black lettering.

Alert Orange (symbolized by triangle). Vivid and high in attention value, this color is used to mark hazards likely to cut, crush, burn or shock the worker.

This color is painted near or on gears, belt wheels and pulleys, along cutting edges, rollers, presses, the hazardous parts of saws, shears, brakes, planers, riveting machines, calenders, and forming and punching presses.

Where parts are covered, the insides of guarding plates and lids and, where practical, the exposed wheels or gears should be orange to call attention to the temporary condition of the machine or to negligent practice.

Alert Orange also is specified for guards or railings near hot pipes, as well as for such electrical hazards as exposed wires and overhead electric rails. It is painted on the inside areas of switch box doors so that such doors will be kept closed.

Fire Protection Red (symbolized by square). Red is reserved exclusively for fire protection. It is used on hydrants, fire mains and risers, hose connections, post indicator valves, and sprinkler lines.

It is painted, where practical, on extinguishers, hose carts, fire trucks, fire blanket boxes, fire doors, and alarm stations. Large areas of red back of extinguishers on walls or columns, on floors beneath fire-fighting equipment and as square symbols or bands on upper walls or columns will facilitate quick location of extinguishers from a distance.

Safety Green (symbolized by cross). Green is the identifying color or symbol for first aid. It is used on first aid and medicine cabinets, doors leading to first aid rooms and dispensaries, on stretcher boxes, and cabinets for gas masks and respirators. To aid location of such equipment from

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Dollars on the Scrap Pile— The Alcoholic in Industry

By EDWARD L. MORRIS

Two million problem drinkers are employed in industry. Here's the story of an enlightened program and what it has done to help them

IN THE period of prosperity and expansion which has characterized American industrial life for the last two decades, leaders of industry have had time to reflect on the necessity for giving more attention to the health and welfare problems of employees. Economic conditions and a tight labor market have required that special attention be given to the problem presented by the alcoholic employee.

Alcoholism costs 60 million man-hours and over a billion dollars every year. Notwithstanding these facts, industry has been slow to respond and take up the challenge posed by its problem drinkers.

With the advent of World War II and the period of defense preparedness which has followed, management more than ever has come to regard its skilled worker as a valuable and not infrequently irreplaceable ingredient. Only recently, however, has industry come to know that of 70 million social drinkers in this country, more than four million are alcoholics and that almost half of this total is employed industrially. Top management, by and large, has failed to recognize its vested interest in this problem and has frequently failed to protect its long-term skilled labor group from the inroads of this insidious illness.

EDWARD L. MORRIS is Executive Director of Portal House of the Chicago Committee on Alcoholism.

Several practical considerations commend alcoholism to industry's attention. These include shrinking markets and competitive demands requiring controlled costs and efficient operation. The frequently hidden nature of the alcoholism problem requires alert management followup. Since the tendency at all levels of supervision is to cover up the alcoholic, the result is not only inhumane but terribly expensive.

One industrial plant engaged in machinery fabrication operations lost a large overhead crane lift and a $20,000 finished product because the crane operator was intoxicated. The fact that no one was killed when the machinery dropped to the floor was the accident's most fortunate aspect.

An Inside Problem

The first step on the part of industry must be to understand and accept the fact that alcoholism is not only a health and social problem outside the plant but also inside. Management of the alcoholic in industry is inevitably tied in with available antidotes for production losses, accidents, and disciplinary problems.

Typical of this new attitude on the part of industry in dealing with the alcoholic employee was a meeting in Chicago last fall aimed at just this objective. Representatives of 49 companies met to hear a description of a special program for industry now in operation for two years under the supervision and control of Portal House of the Chicago Committee on Alcoholism. This program is serving patients referred by such large companies as Acme Steel Company, Commonwealth Edison Company, Crane Company, Peoples Gas Light and Coke Company, Joseph T. Ryerson Steel Company, W. F. Hall Printing Company, and Western Electric Company.

The attitude of those at the meeting was to listen and learn how to deal more effectively with this problem that they faced. This situation could be contrasted with the old attitude of "we don't and won't have this problem; we just fire 'em." The excuse that manpower is now available in quantity is no longer a good reason for getting rid of the alcoholic worker. Alcoholism most frequently strikes workers between ages 30 and 50. At this age, a worker usually has ten or even twenty years experience that even in a full labor market cannot be sacrificed.

Pioneering industrial companies, recognizing these facts, have again built a better mouse trap. Allis-Chalmers Manufacturing Company, Eastman-Kodak Company, E. I. duPont de Nemours & Co., Standard Oil of New Jersey, and Consolidated Edison of New York, set out early to cope with this difficult management problem. These companies, working with the Yale Center of Alcohol Studies, obtained facts

about alcoholism which contradicted many of their old ideas and made them realize their stake in doing something constructive about the problem.

Allis-Chalmers found that its average alcoholic worker had been employed 11.5 years and that he was earning $2.09 per hour, as compared with $1.82 for the average of the work force. Obviously such a man is too valuable to lose.

The company set up its own educational program for supervisors and, utilizing a plant psychiatrist and local community facilities, established a treatment program. Wage losses in the first group treated dropped from $23,000 to $900 in three years. Production gains were significant and accident rates dropped sharply. There was also a definite improvement in discipline. Alcoholics whose absenteeism had been eight per cent cut this figure to three per cent—lower than the plant average. Some of the same experience has been shared by each of the other companies in this group of early pioneers.

Allis-Chalmers' approach was unique in other ways. Its program was entirely contained in its own industrial organization, which draws on other community agencies. Many companies will feel that, with all of their other responsibilities, they cannot afford to have a separate program.

The Portal House Plan

Portal House in Chicago has operated on this understanding and has set up a special service for helping management with its alcoholic employees. The Portal House plan offers treatment for the alcoholic worker and helps management to plan for the alcoholic and educate supervisory employees about this problem.

The educational program for supervisory personnel was developed jointly by the Portal House staff and the Education and Personnel Division of International Harvester Company. It is designed to promote a better understanding of alcoholism among those in industry who see and must deal with the problem daily.

The program includes a lecture, inexpensive charts, and a film which is readily available in the community but is usually loaned by Portal House. The lectures explains that alcoholism is an illness. It gives the supervisor an idea of the importance of dealing effectively with problem drinking on the job, stressing practical industrial reasons.

Most important, the philosophy of "covering up" for the problem drinker is shown as neither good human relations nor good business. Finally, the program tells the supervisor how, guided by an established company policy, to help those who have a problem. There is plenty of time for discussion in the program and the documentary film helps keep interest from lagging.

In educational planning, the Portal House staff works with the management to formulate a policy to deal with employees. Consultation and treatment services are available to any employer requesting them for his employees. Firm handling of problem drinkers is recommended but emphasis is placed on keeping coercion to a reasonable minimum. It is understood, however, that successful treatment can be carried out even under management pressure. The program for industry is usually

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Jet-propelled Fire-fighter

RECENTLY DEMONSTRATED in Britain was this inflated rubber raft, part of a fire-fighting unit known as the "Bikini." The unit consists of three of the rafts, each equipped with three pumps. The rafts are carried by truck to the body of water nearest the fire and lowered by crane.

Once afloat, they are propelled by a jet of water from one of their three pumps, which together can pump 1,000 gallons a minute through a half-mile long pipe. The picture, from British Information Services, shows a demonstration on the River Mole, near Dorking, Surrey.

A squad of the plant fire brigade at Parish Pressed Steel Division of Dana Corp. at Reading, Pa. This mobile fire-fighting unit was designed in the plant. It is mounted on wheels but can be transported by fork truck.

Setting the Pace in Civil Defense

Fire-fighting, first aid, and traffic control learned and practiced on their own time prepare these Pennsylvania workers for any emergency

PERHAPS no important national project in United States history has received more lip-service than Civil Defense. And, by the same token, perhaps none has been more resistant to positive, effective action.

Yet this nation might very well be wholly dependent upon the effectiveness of its Civil Defense effort when and if it is called upon to withstand an attack, atomic or otherwise, on its home grounds.

While the defense of residential and governmental areas is of vital importance, protecting our factories and administrative and production workers is of equal or even greater significance. Modern war is fought as much on the production lines as on the fighting fronts.

Most industrial plants have taken some steps toward self-protection, but too few have gone into the matter with the thoroughness and forethought necessary to guarantee adequate defense of personnel and property against all-out enemy attack.

Organizing an adequate defense of an industrial facility represents a major project—one that calls for complete cooperation between all the human elements involved in the day-to-day operation of the plant.

An excellent example of what is involved in setting up and operating such a program may be found at the Parish Pressed Steel Division of Dana Corporation, in Reading, Pa., where one of the country's most comprehensive industrial Civil Defense programs has been in existence for the past year and a half.

Dana's Parish Division, in peacetime, manufactures heat-treated heavy-duty truck frames,

Fire fighters don suits to protect them against intense heat.

automotive chassis frames, commercial body stampings, and specialized stampings for end products ranging from farm implements items to hot water heater parts.

At present, the plant, which covers over ¾-million square feet of floor space, is also doing extensive interim defense work, fabricating such items as 105 mm gun carriages, 250-pound practice bombs, and JATO assemblies for pilotless bombers.

During both World War II and the Korean action, the Parish Division served as a principal supplier of a wide variety of critical items needed by the military. It would revert almost overnight to the status of an arsenal, should another war break out.

Parish's present Civil Defense program is an ideal example of closely integrated teamwork between management and workers. Actual initiation of the program which exists today devolved upon the union leadership (United Steel Workers-C.I.O. Local 3733) at the plant.

The activity began in January 1954 when initial classes in first aid were set up. Production workers participating in the classes volunteered to do so on their own time. Second shift workers, who did not start work until 3:00 p.m., reported for the first aid instruction one day a week at 12:45 p.m. Classes for the first and third shift workers were held on Monday evenings from 7 to 9 o'clock.

Emergency life-saving equipment is provided and men are trained in its use. Manual resuscitation is started while waiting for the resuscitator-inhalator-aspirator.

Rooms and instructors for the daytime meetings were furnished by the Parish management. Night classes for production workers were held in the union's office, with instructors supplied by the USW. The basic course in first aid extended over a four-week period.

At the conclusion of the initial course, all of the original participants decided to progress into the second phase of instruction—an eight-week course—with many of those completing the extended program continuing with ad-

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An alert in the plant. Shelters have been designated and employees have drilled in procedure for saving life and property in case of

A well-trained medical corps is ready to take care of possible casualties. Basic first-aid courses and more advanced training are given under medical supervision.

Explosion-proof fixture gets a temperature test. Device must operate safely at 365 F. or below.

Lightweight aluminum hand lamp is explosion-proof, takes hazard out of filling open container with lacquer.

Safe Fixtures For Explosive Atmospheres

Explosion-proof equipment needn't be gas-tight but it must confine any explosion which may occur within it

EXPLOSIONS and flash fires are hazards that beset many industries. Hundreds of industrial processes involve volatile flammable substances. Others generate fine dusts that form explosive mixtures with air.

Three conditions must be present to produce an explosion: flammable gas, vapor or dust, the right proportion of air to support violent combustion, and a source of ignition. It doesn't require a flame—an electric arc or even a tiny static spark may set off the blast.

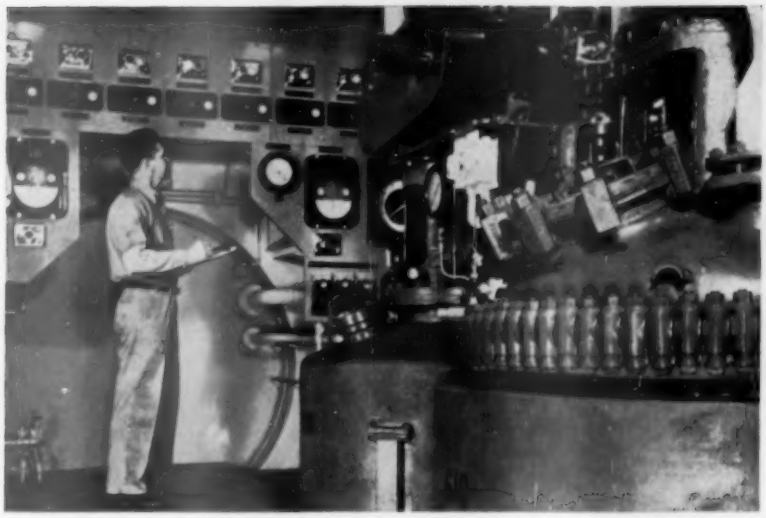
The extent of the hazard depends on several variable factors: temperature, barometric pressure, humidity, ventilation, size of room, processes involved, construction of utilization equipment, and amount of gas, vapor, or dust generated.

Portable gas analyzers are useful safety devices. They will show with acceptable accuracy the percentage of gas or vapor in the air, but they have their limitations. There may be an ungovernable change in any of the above factors. Moreover, these devices can be used only on actual installations, not on those in the planning stage.

When the danger is from electrical causes, the sure method of safely handling the explosion and flash fire problem is by protecting plant electrical equipment—lighting fixtures, switches, motor starters, and other electrical components.

The National Electric Code defines the characteristics of certain gases, vapors or dusts and speci-

ACKNOWLEDGMENT: The accompanying illustrations and the data for this article were contributed by Crouse-Hinds Company, Syracuse, N. Y.



Above: flat ground flame-tight joint. Left: explosion-proof pilot light and pushbutton controls in a vitamin processing company.

fies the type of electrical protection that can render them harmless.

Hazardous Locations

The code names three classes of hazardous locations:

Class I. Where the air contains or may contain enough flammable gases or vapors to produce explosive or ignitable mixtures (as in a petro-chemical system). The groups of Class I locations are: atmospheres containing acetylene; hydrogen and equivalent gases, or vapors such as manufactured gas; ethyl, ether, or ethylene vapors; gasoline, petroleum, naphtha, alcohols, acetone, lacquer, solvent vapors, and natural gas.

Class II. Where combustible or conductive dusts create hazards (as in a grain elevator, flour mill or coal pulverizer). The groups of Class II locations are: metal dusts (magnesium, aluminum, or their alloys); carbon black, coal, or coke dust; grain dust.

Class III. When hazards are easily-ignited fibers or flyings not suspended in the air in sufficient quantities to produce combustible mixtures (as in textile and woodworking mills).

Degrees of Hazard

The code is helpful in another way. It divides hazardous areas into two divisions:

Division I areas are those considered "normally and frequently hazardous," such as locations where volatiles, either liquid or gas, are transferred from one container to another; the interiors or immediate area surrounding paint spray booths; rooms containing open vats or tanks filled with flammable volatiles; or cleaning and dyeing plants.

Division 2 locations are those classified as "abnormally and infrequently hazardous." Factors which help define such an area are: quantity of hazardous material that might escape due to an accident, presence of effective safeguards against ventilation failure, adequacy of ventilation equipment, and total area involved.

The individual situation governs selection of equipment. Depending upon the type of combustible substance present at a

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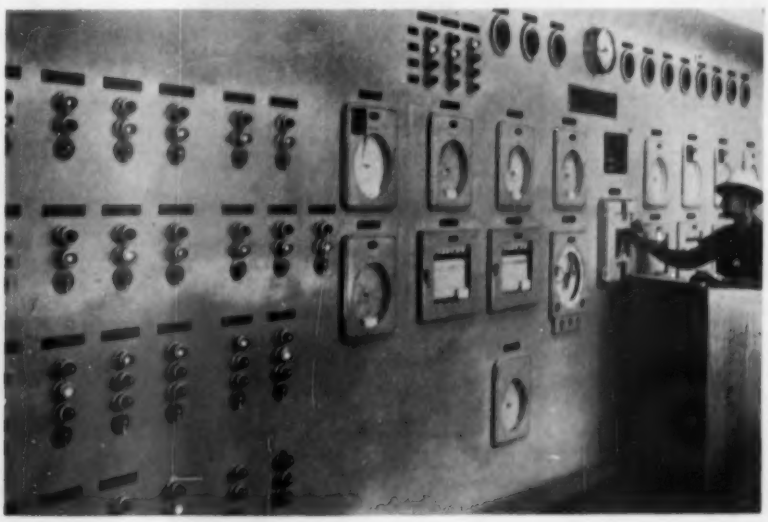
Below: threaded flame-tight joint. Right: explosion-proof control panel protects a paraxylene unit in a Texas oil refinery.



Above, slat conveyor installed flush with the floor for safety. Below, the familiar belt conveyor is one of the safest types.

When It Comes to Conveyors

BY H. C. KELLER

Safest of all materials handling methods, conveyors still require certain precautions in operation

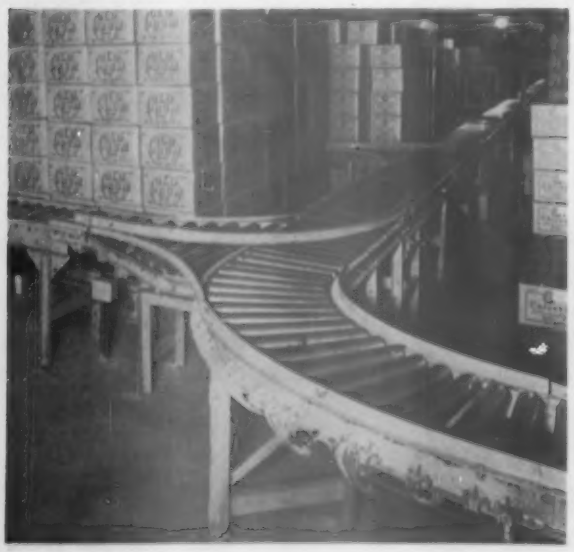
CONVEYORS are the safest method of moving material or objects.

The 1954 edition of National Safety Council's *Accident Facts* shows that of 185,000 compensation cases, only 0.85 per cent are chargeable to conveyors. The next most common type of materials handling equipment—hand and foot-operated trucks—are charged with 2.35 per cent of the cases. These cases cover the states of New York, Ohio, Pennsylvania, and Wisconsin.

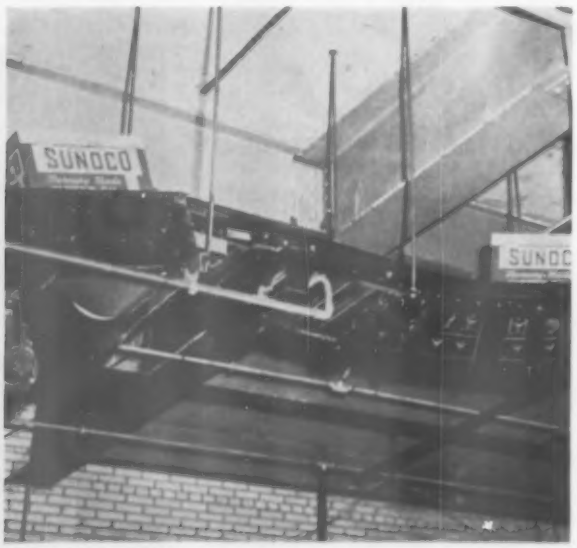
The chief reason conveyors are safer is simply that an operator is not required to ride or travel with the load. The high incidence of motor vehicle accidents can be attributed chiefly to the operators.

H. C. KELLER is manager of Engineering, Lamson Corp., Syracuse, N. Y. This article has been adapted from a paper presented at the Session on Materials Handling, 42nd National Safety Congress, 1954.

Space between rollers can be a hazard with live-roll conveyors.



Roller conveyor with guard prevents loads from falling.



Carelessness, discourtesy, and just plain incompetency are the important factors. I think it naturally follows that, if an operator is required to move with material, we can expect a higher frequency of accidents. Conveyors can reduce accidents by eliminating the need for an operator to guide or manage loads in motion.

Unfortunately, conveyors are not always the answer to a materials handling problem. Trucks or dollies are frequently more practical and more economical. Where conveyors are a possibility, however, it is important that the safety factor is considered.

Roller and wheel conveyors are probably the most common types. Frequently the conveyor is set level between machines so that single objects or a number of objects in pans or pallets can be pushed from one operation to the next. There is very little danger of injury here—except for the human element. Carelessness can easily cause injury to workers guiding or managing the load.

When a roller or wheel conveyor is graded and used as a gravity conveyor an operator is not required. On gravity lines the unit loads should be limited to less than 100 pounds. Heavier loads will "run away" and retarders or brakes should be used. Generally, the safest rule is to use powered conveyors for heavy loads so that full control over the speed of travel is maintained at all times.

Live roll conveyors are another form of roller conveyor. They are most commonly driven by a belt snubbed under the conveying rolls. This design presents a series of pinch points and such hazards must be eliminated at points where conveyors are installed at floor level or working areas. The space between rollers can be filled in to prevent an operator's limbs from coming in contact with the driving belt or other provisions can be made to prevent personnel from coming in contact with or crossing the conveyor.

Belt conveyors are another common type. These are perhaps the safest conveyors made so long as all pinch points where belting feeds onto pulleys are guarded.

Slat conveyors present a different hazard. If there is clear space of more than one inch between slats and the conveyor is installed at floor level or in working areas, the entire space under the top or conveying run of slats should have a solid, smooth bed to prevent a shearing hazard between the moving slats and the substructure. Such a bed is not required where other provisions are made to prevent personnel from contacting or crossing the conveyor.

Chain conveyors take many forms, but they all carry, pull, push, haul, or tow the load either directly or by the chain or with attachments, pushers, cars, etc. These conveyors should be guarded by hand rails or guard plates to minimize the possibility of a worker catching his limbs or clothing in moving parts.

Vertical conveyors are used in a variety of forms. When automatically loaded and unloaded, the vertical conveyor is as safe as any other type. When it is manually loaded or unloaded, it immediately presents hazards requiring special guards to protect personnel from injury.

Pneumatic conveyors are extremely safe because the material being moved is enclosed in a sealed tube or pipe. The only hazard is the possibility of carrying air from a contaminated area to another area. This can easily be prevented by arranging the piping to prevent suction of contaminated air into the system.

Conveyors generally have one common characteristic. They are installed in a fixed path which frequently crosses aisles. Where possible, elevate the conveyor at the aisle to allow headroom or trucking clearance. If you must keep the conveyor at a low level across the aisle, several arrangements are possible:

1. If traffic is infrequent, equip the conveyor with hinged sections which can be moved to give aisle clearance.

2. Where the conveyor is not more than 18 inches wide, install stairways for foot traffic, allowing workers to reach the conveyor level and step over.

3. If conveyors exceed 18 inches in width or the stair arangement is not practical, install bridges over conveyors.

When conveyors are installed in an elevated position over aisles, precautions must be taken to prevent material being conveyed from dropping onto traffic below. Another important caution: don't permit personnel to ride with the load unless the conveyors are designed for passenger use.

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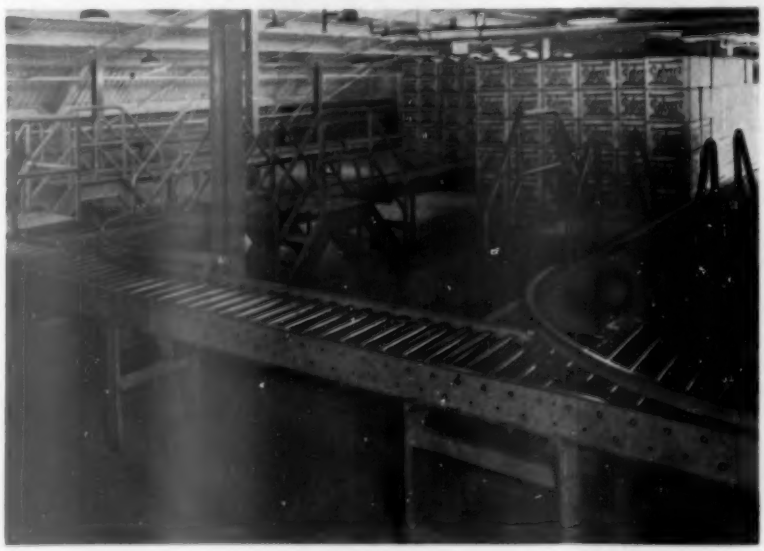
Belt, live-roll and gravity conveyors with stairways for workers to cross over.



Serving All Employees

New building provides modern facilities for personnel, medical and safety activities

ADMINISTRATION of principal employee service activities for the 18,000 workers employed at Inland Steel Company's Indiana Harbor Works is housed in a new air-conditioned, three-story steel-framed structure.

Medical examination and service facilities occupy a substantial part of the first floor for the convenience of newly-hired employees and for treatment of emergency first-aid cases. Applicants proceed from the modernized employment building on the extreme left to the Medical Building through a door which is out of sight at the far end of the building.

Included in the building are an industrial hygiene laboratory, a clinical laboratory, X-ray room, reception room, and file room.

Cost of air conditioning is held to a minimum by using steam from waste heat boilers in the steel plant to operate refrigeration equipment, which is located with power distribution equipment in a penthouse on top of the building.

The new building is connected to the existing six-story building by a totally enclosed bridge at the second story level.

The building was designed and constructed by The Austin Company which furnished the accompanying illustrations.

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Administration of Inland Steel's aggressive safety program centers in this departmental headquarters on the second floor. Seven-foot movable partitions with obscure glass enclose private offices around the perimeter of the area. Ceilings are of acoustical type with glass enclosed surface-mounted fluorescent units. Floors are asphalt tile.

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This reception and file room serves the Medical Department which occupies most of the ground floor of the Personnel Services Building. Applicants for employment, awaiting medical examination, can be seen in background. Bench on left is for employees who have come in for treatment in the hospital.

Walls are of porcelainized steel paneling; ceilings are of acoustical tile with glass-enclosed fluorescent lighting, and floors are terrazzo.

Employees coming into the Medical Department on the ground floor receive first-aid treatment and fresh dressings in this treatment room directly adjacent to the reception and waiting room. The well-equipped physiotherapy room can be seen through the doorway.

An important part of the medical service is the industrial hygiene laboratory which keeps a close check on the processes and material involved in steel-mill operation. A library and conference room occupies the space directly adjacent to the laboratory in the administrative area which is entirely separate from the medical services facilities across the corridor.

Complete clinical laboratory facilities have been provided in this section of the Medical Department. Here all applicants for employment undergo a complete examination before hiring. Porcelainized steel wall panels and terrazzo floors aid maintenance of cleanliness and sanitation.

Medical department facilities occupy 7,500 square feet on the ground floor. This view, from one corner of the clinical laboratory, looks through the adjacent X-ray department to a corridor along which medical offices, X-ray file room, surgery, and hospital bedrooms are located. Stainless steel equipment has been used throughout the laboratories.

Two four-bedded rooms are located at one end of the Medical Department, which extends the full length of the building.

New Life for Safety Meetings

By RANDELL W. LEMKE

Have your safety meetings become siestas? Here's a type of program that will keep your audience awake

DEPARTMENTAL safety meetings are used in most industries as an effective medium for conveying safe work methods to the employee. Our warehousing department recently conducted their monthly safety meeting in a different manner; the subject was "Safe Jackstacker Operation." The presentation proved very effective because of its originality and novel way of presenting this all-important subject.

The meeting was conducted in the form of a skit with employees and supervision taking part. In the actual presentation, the narrator (an employee) led the action with the use of a small portable speech amplifier. The main actor (another employee) then followed with the action described.

RANDELL W. LEMKE is Safety Supervisor, International Harvester Company, Melrose Park Works.

All meetings are of ten-minute duration and scripts are written by Mr. M. H. Ginley, general foreman of Stores and Warehousing. Mr. Ginley has prepared a listing of other safety hazards and intends to present them in a similar manner.

We feel that more good was derived from a presentation of this type than from a safety meeting where there is only discussion of good or bad work habits.

* * *

GINLEY: *(Opening Remarks)*
Good Afternoon, fellows.

Our safety meeting today is on the subject of "Safe Jackstacker Operation."

We're going to show you "The Wrong Way" and its *terrible* consequences, and then "The Right Way," or the *safe, sure,* and *only* way a jackstacker *should* be operated.

Here to describe the action is Roger Flinn.

PART I—THE WRONG WAY

No. 1

FLINN: *(Narrator)*
The place is any warehouse.

Leonard has just gone to the garage to get his jackstacker.

As we look toward the garage, we see our hero coming out.

See how careful he is?

What fun he has playing with the controls!

But that's not all! See how nice he rides the jackstacker? (See Picture No. 1)

No. 2

Watch him now. He's going to put stock away.

Will he use a safety skid or a double face pallet?

Not our boy! Do you think he's a sissy? Take a chance, that's it. What's a few broken bones; and besides, the guys will think he's a real man!

There he goes, and sure enough he picks a single-face pallet.

Now to put the stock away.

Will he hit the rack? He surely did!
(See Picture No. 2)

No. 3

Climb up on the pallet, Leonard, atta boy!

(Leonard falls; rubs legs; starts to get up.)

Poor boy! Did you skin your shins?

(In getting up, Leonard starts to back into upraised forks.)

(See Picture No. 3)

No. 4

See how high his forks are raised?

There he goes, backing right into the forks!

(Leonard backs into forks; grabs for his rear; rubs his shins; sits down disgusted talking to himself.)

Sit down, Leonard, think this thing out.

What the hell is happening to you? What's that? "Just a bad day." Nothing else could happen to you?

Well, let's see!

Take the jackstacker and bring it back to the garage.

Now don't look where you're going!

That's right, see how close you can get your heel to the jackstacker.

(Leonard gets heel caught, falls to floor, stays on floor moaning.)

(See Picture No. 4)

No. 5

He did it, fellows! Come on, stretcher bearers, do your job! Another victim for the hospital.

(See Picture No. 5)

End of Part I

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GINLEY: *(Between Part I and Part II)*

We have just witnessed a demonstration of the *wrong* way to operate a jackstacker.

Six major errors were brought out.

Here they are:

1. Riding the Jackstacker.
2. Playing with the controls.
3. Going up in the air on a single face pallet instead of a safety skid.
4. Careless bumping into racks.
5. Leaving the forks upraised.
6. Walking too close to the Jackstacker.

Now in Part II we're going to show you the *right* way to do all of these things. Here to describe it is Roger Flinn.

How well has Leonard learned his lesson? See next page.

PART II—THE RIGHT WAY

No. 6

FLINN:

The place—the same Warehouse.

The time—well, after our hero's bumps and bruises have healed.

We see Leonard looking sharper and wiser, ready to go back to work.

Out of the garage he comes with his jackstacker.

But wait, this isn't the same fellow, it can't be!

He's not riding the jackstacker, and I notice he's not playing with the controls!

He moves like he means business! Confidently, like he knows what he's doing.

Rudy has just told him to put that pallet of stock away.

Will he use the safety skid?
(See Picture No. 6)

No. 7

Why of course! Do you think he's dumb? Why should he take foolish chances? He's learned the hard way not to work dangerously.

No careless bumping into racks either!

There, that's right, Leonard, step on the safety skid. Is all clear?

No. 8

Work freely, Leonard, you're always safe using a safety skid.
(See Pictures No. 7 & No. 8)

No. 9

Now that you're finished, let's take the jackstacker back to the garage.

No danger now, he knows how to walk with this equipment.

Notice the safe distance between his heel and the jackstacker?

Very good Leonard! You know, the right way looks mighty good to me.

* * *

SAWYER: You're right, Rog, there's no better way than the *safe* way!

GINLEY: *(Closing Remarks)*

Our thanks to Leonard Sawyer, Roger Flinn, Horace Williams, and Tom Kavanaugh for doing such a good job in presenting this safety skit.

If you benefit *safety-wise* from what you have seen demonstrated here this afternoon, and if you leave here with your minds made up to *work safely at all times;* then this meeting has been worth-while.

Thank you, and now this meeting is adjourned.

A Message from the Vatican

Following are excerpts from the address of the Pope to the World Congress on the Prevention of Occupational Accidents held in Rome during April 1955. Full text of the translation of the address from L'Osservatore Romano *has been distributed by the International Labor Office, Washington, D. C.*

FOR THE past few decades, the fight against occupational accidents has been pursued relentlessly with the help of specialized technical organizations. We may see in it one of the happiest consequences of the impetus given in the last century, and since then constantly strengthened, by so many generous-hearted men, whose efforts to improve the material and moral condition of workers were encouraged and guided by our Predecessors, Leo XIII and Pius XI, in their Social Encyclicals. Important societies were set up, frequently with the support of public authorities, whose object was to further the work of all those responsible for industrial safety and hygiene.

But it is becoming increasingly apparent that we must avoid dispersal of our efforts; we must share the fruits of experiments and research; we must co-ordinate initiative on the widest possible international plane. That is the aim of this World Congress which has invited here representatives of the accident prevention organization of the member states of the International Labor Organization.

Among the subjects on your agenda, we particularly note the role and functioning of safety committees, the problem which the safety of machinery raises for the manufacturer, the influence of the human factor and especially vocational selection and training, and the problem of international co-operation in matters of safety.

While not losing sight of the part played in the prevention of occupational accidents by technical factors, it was necessary to stress a more delicate aspect, that of the human motives. The struggle in which you are engaged is a continuation of the tireless efforts of man, who, since the beginning of time, has been striving to master matter, its blind resistance, its baffling reactions, sometimes so unexpected and terrible when it turns against those who seek to confine it within the network of human inventions.

All human labor entails a certain amount of risk, whether physical, economic or moral. This risk may, and indeed must, be accepted if it does not overstep the limits dictated by caution. For in such a challenge man finds a powerful psychological stimulus.

On the other hand, nobody may, without serious reason, endanger himself or his fellow beings. Yet how much culpable negligence, how many deliberately aggravated risks are due to the sole desire to avoid the economic burden and material sacrifices which the application of safety measures must entail? Facility offers the same easy slope to all: to save time, to increase production and profit, or merely to spare oneself an unpleasant mental effort, all vigilance is relaxed, and even the most elementary precautions are sometimes neglected.

Yet, if we consider recent socal evolution, we shall see how well-founded and useful such an effort is. Nobody nowadays questions the part which subjective factors play in the workers' productivity. A human being whose physical, emotional and moral requirements are ignored, ends by becoming embittered and rises against those who scorned his personal dignity. How can we hope to maintain a man's interest in the task which he is performing or the professional pride which prompts him to do it to the best of his ability, when he is constantly under the threat of an accident which may deprive him and his family of the wages on which they depend for their living? Even from a purely economic point of view these reasons should be sufficient to arouse in the employers the wish to give their workers satisfactory conditions of safety and hygiene.

Among the general methods used in this connection, there can be no doubt that vocational selection and training as well as improvement of the workers' skill hold a foremost place. This is clearly apparent from the frequent accidents among emigrant workers engaged in industrial work for which they have not had the advantage of the necessary lengthy period of apprenticeship or even of a family or of a regional tradition.

Seen in this light, the question appears to be of very great scope, and reveals one of its typical aspects: that the specific problems of the prevention of occupational accidents can only be solved completely if they are seen as part of a whole, so that all the facets of the worker's life are taken into account and his legitimate aspirations are safeguarded. It would then be easier to apply technical measures and to obtain results which neither constraint nor other means of external pressure could yield.

How much patient research, how much competence and spirit of cooperation is necessary to solve the theoretical problems! And what should we say of the numerous obstacles which stand in the way of the application of protective measures! Difficulties which, sometimes, are due to those most concerned, who fail to understand the significance of what is required of them, the tragic consequences of actions which they are forbidden to perform, and those who, while not denying the need for the regulations imposed on them, little by little weary of observing them and whose good will has to be stimulated without cease.

Fiction

The first day on the job finds our Safety Engineer with a fight on his hands—and prospects of more to come

The First Skirmish

By BILL ANDREWS

July 5, 1955

SOMEDAY I want to get down on paper the problems involved in leaving a safety director's job. I want to tell the story of what I've just lived through—the process of relinquishing authority, culling files, planting certain key ideas in a successor's mind.

But this is the wrong time to do it, for today I'm full of the reverse of the picture—the picking up of reins, not the laying down.

I have just spent my first day as director of safety of Exsteel, Inc., a Chicago firm with a varied industrial line involving just about all the range of metal working operations—both heavy and light press work, a foundry, a small development machine shop, and substantial production machining. It is part of Eastern Enterprises, which has a hand in automotive parts, electrical equipment, and a number of other sidelines which seem amazingly far removed from my experience.

Exsteel is a fairly old concern, but its tie with Eastern is new. Employment will run, at the peak, some 7,000. Its accident rate is atrocious for a plant of its size and type of operations. It has also been badly managed in other ways, and has been running in the red.

I come into it as a part of a management upheaval of nearly revolutionary proportions. There is, at the moment, no president—the man who tried to brush me off when I made my survey a month ago has been bounced and his successor, though already selected, is not on the grounds. The new general superintendent came two weeks ago, and the office manager is a most anxious carry-over.

Eastern, in other words, is reorganizing the company, and it may be some time before main lines of attack will become clear to me.

* * *

Meantime I have a title, an office, a stenographer and one assistant—and that assistant is my predecessor as director of safety, Joe Burns.

The stenographer and Joe were waiting for me when I came in—waiting in obvious anxiety. They spent an hour getting me on the payroll, getting me a physical examination, showing me the physical layout of plant and office so that I wouldn't get lost in the maze of structures which have accumulated to form this plant.

Then Joe suggested to the girl that she go for a walk, and the two of us got down to cases. First, Joe submitted his resignation to me, saying, "You will want your own staff, not a has-been like me. I'll stick as long as you want to get you squared away, and then I'll take off."

I said, "Do you want to leave?" And he replied, "I don't want to saddle you with a man you don't want."

I tore up his neatly typed resignation and pitched the pieces in the wastebasket. Maybe that was foolish—maybe I should have played it tough and put him on probation. Kept him stewing about his future until I made up my mind. But as I told the man from Eastern who hired me, Exsteel made Joe's failure inevitable by setting conditions which made a decent safety job impossible.

Since I'm promised a revision of policy that will make a top flight safety program possible, there's at least a chance that Joe can be snapped out of his lethargy and defeatism and made useful. He has, in any case, some real talents as an inspector and record man. He knows the situation. Yet the real reason I want to keep him is that I think Exsteel owes him a job for the five years that remain till he can retire. I've money enough in the promised budget to hire at least one good younger man as well.

Joe was very, very grateful. I know that it cost him a lot in anxiety to submit that resignation. He said, "All right, then,

we'll try it. If it doesn't work, you can still send me packing. Now, what is it that you want me to do?"

I had, of course, the main outlines of the statistical situation already, since I'd made that survey a month ago. And I'd been over the plant hurriedly during the survey. I knew in general the outline of the safety program already in operation—such as it is.

So there were a good many things I didn't need from Joe right now, and I took a few moments to think out what I did want from him.

Then I said, "Tell me your dreams." He stared at me, and said, "What is this, a psychoanalysis?"

"No," I replied, "not that kind of dreams. But you've been here many years not doing what you knew needed doing. There must have been a lot of times when you thought of what should be done if the front office would let you. I want those dreams and hopes and plans. Maybe we can make some of them come true."

You could watch the conflict of emotions in Joe's face like the lights and shadows moving across a plains country on a day of broken clouds. Here was I, the newcomer, picking his brains to make myself look good in contrast with his failures. But also here was I, the instrument to make dreams into reality. The bureaucrat in him resisted—but the consecrated safety man in him rejoiced, and it was the safety man in him that won out.

* * *

He went to a file and pulled out a series of neat folders. The ones marked 1948 and 1949 were fat, and the later ones grew progressively slimmer. In the 1955 folder was only a single sheet—an interoffice memo asking for $200 for some safety films. On it was scrawled the word "No," and an initial.

I looked into the '48 folder and found a treasure — the carbon copy of a 50-page evaluation of the situation at the time and a most painstakingly worked out program draft. Joe said, "It wasn't even acknowledged. Obsolete now, of course, but you might find something of use in it."

I know from a casual lookover that he made the understatement of the year. In this and later drafts, memos, and suggestions in the files is a mine of material to study, sift, and put to work on a selective basis. I think they'll prove to be worth all that Joe's been paid in seven years.

Then I put the material aside for later study. Then I asked Joe, "While we are getting set and waiting for the reorganization to be completed, what do you think you ought to do?"

Joe shrugged. "That depends," he said, "on what you want. Do we just lie low, or do we start acting on details? In other words, when the new president come in, do you want to have everything peaceful and quiet, or do we confront him with a war already underway when he arrives?"

I thought that one out a minute. Then I replied, "I want a war, but a war of limited objectives. Our assigned mission is to get a safety program rolling now. Eastern knows what I think of the present situation, and I think we can assume that management will back us—if not we might as well find it out quickly. On the other hand, until the new president comes, we don't want to be in conflict with the whole plant and get the reputation of being fanatics. Can we pick a small-scale target and go after it hard and show some results fast?"

Joe said, "I had something like that in mind. There's a particularly bad mess in Department C—mostly fairly heavy production machine work. The foreman's a lug, and I feel pretty sure he's on the way out. Also, he's not liked by the men. A tangle with him might be good for your reputation both in the front office and on the floor."

I asked what the main problems

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Warning By Night or Day

A car stalled on a narrow highway is a "sitting duck," a target for and a menace to drivers following who may not be able to see it in time to stop. To protect its sales car fleet, one company equipped each of its 300 cars with double sets of reflector-type highway warning signals.

The device combines a red flag with reflector buttons and gives warning to following traffic by day or night. It is manufactured by Vari-Products Company, Chicago. In the above illustration, J. L. Cantrell, safety director of the Miller Brewing Company, is examining the device with one of the star salesmen.

Japan's Industries Are Cutting Accidents

By PAUL VAN CLEEF

Post-war expansion has been accompanied by energetic and effective safety programs

TO MANY, Japan means a land of enchantment. It conjures up pictures of cherry blossoms and verdant hills, beautiful valleys, and sparkling lakes. This is the Japan the tourist dreams of seeing, and he would not be far from realizing his vision.

However, looking beyond, if so inclined, he would be equally impressed by a Japan of innumerable factories and shops, fine modern harbors filled with freighters and liners, rushing trains and trucks and all the activities of modern, bustling industry.

A safety-minded person would see in this situation a need for his kind of service, and be glad to know that the government and the industries he has observed recognize this need also. In fact, he would learn that in the Labor Ministry there is a Safety Section which is doing a splendid job.

The author is one of those travelers who have had the pleasure of visiting Japan, an experience which took place in the late summer of 1954. Being greatly interested in safety, he was able to study at close hand some phases of this field in that country. It was a real pleasure while there to meet the leaders of the Japanese safety movement. Among the distinguished group was Mr. Saburo Naguchi, head of the Safety Section, Labor Standard Bureau, of the Labor Ministry.

Since the end of World War II, industrial accident prevention efforts in Japan have mounted rapidly. An increase in accident rates about that time was accounted for by the unstable conditions then existing, but represented an incentive to activity.

Beginning with September 1947, full enforcement of the Labor Standard Law was recognized as desirable but inadequacy of statistical data, in spite of industry's cooperation, offered a problem. Gradually, however, safety consciousness began to penetrate even small organizations and conditions have steadily improved.

By 1949 model establishments were used to demonstrate safety methods in every prefecture. Through the factory inspectors an educational program was set up to reduce frequency rates by at least 30%. This was encouraged in factories of 100 or more workers by offering premium reductions under the Workers Accident Compensation Insurance of the government. The saving acted as a stimulus to better records. By 1950 when the "25th Safety Week" was held, a turning point was reached, a great improvement was noted. The trend is shown in the following table:

Year	*Frequency Rate*
1949	44.4
1950	44.1
1951	36.7
1952	28.5
1953	24.8

The standard formula for obtaining the frequency rate was

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The author meets with a group of Japan's safety leaders.

PAUL VAN CLEEF, now a resident of California, is a director of the Greater Los Angeles Safety Council. While in Chicago he was associated with the firm of Van Cleef Bros. and was active in safety work both as an employer and as a public spirited citizen. He was general chairman of the Rubber Section, National Safety Council, 1943-45, and a member of the Council's Board of Directors for many years. He also held many offices in the Chicago Safety Council, including that of chairman of the board.

Secord to Address Congress

COMMUNICATION will be the subject of the early morning sessions of the 43rd National Safety Congress, with a popular speaker of the 1952 Congress making a return engagement.

Arthur Secord, director, Community Service and professor of speech at Brooklyn College, will handle this popular feature of the Congress, discussing such topics as "the world's greatest teaching device" and "how to let the other fellow have your way." These sessions will be held in the Grand Ballroom of the Conrad Hilton Hotel Tuesday through Friday.

The sessions and their subjects are scheduled as follows:

Tuesday—"How to Sell the Safety You Know." When something goes wrong it is frequently because there has been a difference between what someone has said and what someone else has heard. Four simple rules that can help us make sure our ideas will be communicated accurately.

Wednesday—"How to Criticize Tactfully." Five ways to handle grievances diplomatically and get cooperation, not resentment.

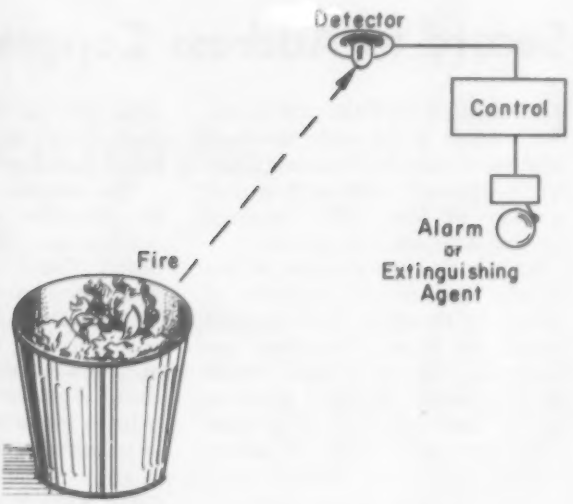
Thursday—"How to Recommend and Win." Running a safety meeting or conducting a plant inspection, here are practical methods of value to you.

Friday—"Painting Haystacks." Should a poor producer be paid the same as a good producer simply because their needs are the same? An analysis of current thinking on this subject and what the men of industry can do about it.

DATE AND HOTEL ASSIGNMENTS

	(Hotel)	Oct. 17 Monday AM	Oct. 17 Monday PM	Oct. 18 Tuesday AM	Oct. 18 Tuesday PM	Oct. 19 Wednesday AM	Oct. 19 Wednesday PM	Oct. 20 Thursday AM	Oct. 20 Thursday PM	Oct. 21 Friday AM
Sectional Sessions										
Aeronautical Ind.	Hilton		X		X		X			
Air Transport	Morrison				X					
Auto. & Mach. Shop	Congress						X		X-jt.	
Cement & Quarry	Hilton				LX		X			
Chemical	La Salle		X		X		X		X-8	
Coal Mining	Hilton		X		LX		X			
Commercial Vehicle	La Salle			X	X	X	X	X-jt.	L	
Construction	Hilton		X		X					
Electrical Equipment	Hilton						X		X	
Fertilizer	La Salle		X		LX					
Food	Morrison				X		LX		X	
Glass & Ceramics	Congress		X		X					
Marine	Morrison		X		X	X	X	B	LX	
Meat Pkg.—Tng. & L.	Congress		X		LX					
Metals	Hilton		X		X2		L		X	
Mining	Congress		X		LX		X		X	
Occ. Health Nursing	Hilton			X		X			L	
Petroleum	Hilton		X		X2		X3		X	
Power Press	Hilton-Congress				X				X-jt.	
Printing & Publishing	Hilton		X				X			
Public Employee	Hilton		X		X		X			
Public Utilities	Hilton				X				X3	
Pulp & Paper	Hilton		X		X		X		LX4	
Railroad	Morrison				X		X		X	
Rubber	La Salle		X		X		LX			
Textile	Hilton		X		X					
Traffic	Congress		X	X	X	X	X	X	X	
Transit	La Salle			X	X	X	X	X-jt.	L	
Wood Products	Hilton		X		X		X-jt.		X	
Divisional Sessions										
Farm	Morrison			X	X	X	X	X	X	
Home	Hilton					X		X		
School & College	Morrison		X	X		X	X	X	X	
Women's Activities	Hilton-Black.		X		X					
ASSE—Subject Sessions										
ASSE Ann. Mtg.	Hilton	X								
Subject Sessions	Hilton & Congress					X		X		X
General Sessions										
Annual Council Mtg.	Hilton	X								
Banquet	Hilton						X Eve.			
Early Morn. Sess.	Hilton			X		X		X		X

X One session; X3 Three group sessions; L Luncheon; X-jt. Joint session, two or more Sections; B Breakfast meeting



Above: new electronic system "sees" fire in the infrared spectrum, rings an alarm or actuates an extinguisher.

Left: device detected this fire in eight seconds, before the appearance of much smoke. Equipment includes a control panel (on wall) and tiny detectors like the one near the ceiling.

Electronic Eye Is Fast Detector

AN "electronic eye" for detecting fires at the speed of light has been incorporated in a new system developed by Electronics Corporation of America. It is designed to protect airplane hangers, theaters, schools, churches, auditoriums, warehouses, etc.

Each unit of the system, known as Fireye, has a 100-foot fire detection coverage, or five times greater than the system previously used. The system "sees" fire through a tiny, sensitive element, or electronic eye, which transmits a minute electrical signal when exposed to infrared radiation.

The equipment required includes a control panel set up on a wall and one or more detectors installed in the ceiling.

An earlier electronic fire detection system was developed by one of the corporation's predecessor companies about four years ago. Under that system, only six detectors could be used in a single area, each capable of protecting a maximum of 1,600 square feet. Now, the company states, the system can utilize as many as 20 detectors, each protecting an area up to 5,000 square feet.

A single unit of the original equipment has a 20-foot radius coverage, in contrast to the new unit which has a 100-foot radius. This means it detects a one square foot fire at a distance of 100 feet.

When a fire develops anywhere in an area protected by the electronic eye, the detector is actuated by infrared radiation generated by the fire. Instantly the control panel operates a relay system which either opens or closes a circuit. Results include: the ringing of a fire alarm bell or other warning signal to the local fire department, or immediate activation of an automatic fire extinguishing system.

Fireye can be used satisfactorily outdoors. With thermal (heat powered) devices, strong winds might delay the heat from reaching the element.

A built-in warning system provides protection against power failure and trouble in any of the system's component parts. The system automatically monitors the readiness of the detectors and their electronic circuit. Should failure occur anywhere, a trouble lamp lights up.

Rockwood FogFOAM SpotPROTECTION System automatically drenches loading platform.

How to muzzle a vicious fire hazard

Dangerous, small-area fire hazards can viciously destroy life and nearby property — if not properly protected.

The tank truck loading platform above, for instance, imperils not only the tank trucks being loaded but also the storage tanks in back of it. Should a truck connection break during loading causing a static spark thus igniting a truck, millions of gallons of gasoline would go up in flames.

A Rockwood SpotPROTECTION FogFOAM System keeps this hazard muzzled — goes into action within 5 seconds of a fire's start. It cools entire area, blankets platform, controls fire, and protects surrounding area within minutes.

Each Rockwood SpotPROTECTION System is custom engineered to meet individual requirements of hazard. Systems handle WaterFOG, FogFOAM, FOAM or "WET". Three sizes: 2, 4 or 6 Heads. Operated automatically or manually. Automatic operations are for fixed temperature sprinkler type fire detectors or for heat actuated devices. Special Systems also available for use with Rockwood FOAM Maker Chambers.

Find out how these SpotPROTECTION Systems can meet your needs. Mail coupon below.

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses

Rockwood Foam, available in 5-gallon cans or 50-gallon drums, keeps Rockwood FOAM and Rockwood FogFOAM SpotPROTECTION Systems constantly replenished. No replacement problems.

Rockwood "Wet", available in 5 gallon cans or 50 gallon drums, increases penetration and extinguishing power of water. Excellent where fire is deep-seated or water scarce.

SEND FOR THIS INFORMATIVE BOOKLET

ROCKWOOD SPRINKLER COMPANY
Portable Fire Protection Division
1042 Harlow Street
Worcester 5, Mass.

Please send me your engineering data sheet on Rockwood SpotPROTECTION Systems.

Name _____

Title _____

Company _____

Street _____

City _____

Zone _____ *State* _____

PERSONALS

Appoint Field Engineer For Lehigh Valley Council

JOSEPH N. DORSEY, of Summerville, N. J., assumed the post of field engineer for Lehigh Valley Safety Council June 1. He takes up the activities formerly handled by the late James C. Knowles. He will work out of the Council office at 602 East Third Street, Bethlehem, Pa., coordinating his work with Harold A. Seward, Council secretary-treasurer and manager.

Mr. Dorsey finished his course in mechanical engineering at Carnegie Institute of Technology in 1917, and later studied at Rutgers University and at New York University. He has had varied experience in safety engineering with Truscon Steel Company, Sharon Steel Corporation, Hercules Powder Company, and Eagle Pencil Company. From 1933 to 1935 he was state director of safety for New Jersey. He served several years as safety and personnel supervisor for Taylor-Wharton Iron and Steel Company, High Bridge, N. J. He will remain a member of the Council Executive Committee.

Tide Water Oil Names Safety Man

SAMUEL O. BACON has been appointed safety supervisor for Tide Water Associated Oil Company's western division.

For 11 years Mr. Bacon has been safety engineer and assistant fire chief of the company's 1,500-man Avon Flying A refinery which currently holds the California safety record of 4,426,595 man-hours without disabling injury.

In his new post he will be responsible for supervising safety programs, guiding the elimination of unsafe practices and conditions, recommending protective equipment and accident prevention methods, and participating in accident prevention investigations and analyses.

He will make his headquarters in San Francisco.

Mr. Bacon joined Tide Water Associated in 1920 as a machinist at its Flying A refinery at Associated, Calif. He is a member of the safety committees of the American Petroleum Institute and the Western Oil and Gas Association and is active in Contra Costa County (Calif.) safety activities.

Sabens Heads AAR Safety Section

R. C. SABENS, of Cleveland, superintendent of safety for the New York, Chicago and St. Louis Railroad, was elected chairman of the Safety Section of the Association of American Railroads at the concluding session of the organization's annual meeting in Buffalo, June 9.

Mr. Sabens, who has served as vice-chairman of the A.A.R. Section for the past two years, succeeds J. R. Thexton, of Hoboken, N. J., superintendent of safety for the Delaware, Lackawanna and Western Railroad.

Installed as vice-chairman for the ensuing year was R. S. James, of Denver, superintendent of safety and fire prevention for the Denver and Rio Grande Western Railroad.

Also elected to the Committee of Direction, governing board of the Railroad Safety Officers' body, were C. T. DeWitt of St. Paul, Minn., superintendent of safety and fire prevention for the Northern Pacific Railway, and D. P. Russell, of Montreal, Que., supervisor of the safety, loss, and damage prevention bureau for the Canadian Pacific Railway.

Reelected as members of the Committee of Direction were D. E. Mumford of New York City, manager of safety for the New York Central System, and J. F. Toohey, of Boston, Mass., director of safety and training for the New York, New Haven and Hartford Railroad.

Mr. Sabens, the newly elected chairman, is a veteran railroader. He has been with the Nickel Plate Road for 33 years, having been in charge of that line's Safety Department since 1945. He is also vice president of the Railroad Section of the Ohio State Safety Council.

Created in 1921, the A.A.R. Safety Section conducts organized efforts to promote safety in every phase of railroad operations. Its accomplishments are reflected in the outstanding safety record established by the railroads over a long period of years.

CHARLES J. BROSKA has been appointed assistant director of the accident prevention division of Allstate Insurance Company, Skokie, Ill. In this position, he will assist in the administration of the company's nationwide program of traffic safety activities. Mr. Broska, a graduate of the University of Pennsylvania, previously had been a management consultant with Peat, Marwick, Mitchell and Co., Chicago.

ELMER F. RESKE was elected President of the Society of Fire Protection Engineers at the Society's annual meeting on May 19 at the Netherland Plaza Hotel in Cincinnati. Mr. Reske is manager of the Cook County Inspection Bureau, Chicago. Other officers elected were: First vice president, William G. Schultz, chief engineer and assistant vice-president, Lumbermens Mutual Insurance Co., Mansfield, Ohio; Sec-

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AVAILABLE

Safety, fire prevention engineer and industrial hygienist. Now in civil service. Desire association in private industry. Good administrator, organizer and ideas. Experience: Director of Safety & Plant Protection for 2 plants. Safety inspection and underwriting for fire & casualty. Safety engineer Army and Navy. Asst. fire chief at present. Army, Navy, U. S. Air Force awards. Education: Special courses, U. of Michigan. Safety, fire and industrial hygiene. (4 yrs. college eq.) & electrical. Write Box No. 453, NATIONAL SAFETY NEWS.

JACKSON CAP-AND-HELMET

SCH-1

Arc-Welding Helmet, type H-1 with metal fixed-front lens holder pivoted to Safety Cap.

Jackson SAFETY HATS and CAPS — Cap-and-Helmet Combinations

• **THEY PASS THE TESTS.** Made of compression-molded fiber glass, the strongest protective material per ounce of weight, these safety hats and caps surpass all known industrial requirements. They comply with Federal Specifications GGG-H-142b when tested for *electrical resistance*, *impact* (the 8-lb. ball test), *penetration* (the 1-lb. plumb bob test), *flammability*, and *water absorption*.

• **HATS AND CAPS.** The full brimmed *Hat*, at 14 ounces, weighs well below the Federal Specification limit. The *Cap*, having a visor only, weighs but 12¼ ounces.

• **IN SEVEN COLORS.** Both hats and caps are made in grey, white, yellow, orange, green, blue, and brown. Other colors may be furnished on quantity orders.

• **HELMET COMBINATIONS.** All Jackson Arc-Welding Helmets are available pivoted to the sides of the Safety Cap. Helmet goes easy *on*, easy *off*. Just slide it in to assemble, push a button to release. Your present helmet shells H-1 and H-2 may be utilized as they are, by ordering Safety Cap type SC-2 plus "Quick-Detach" Brackets.

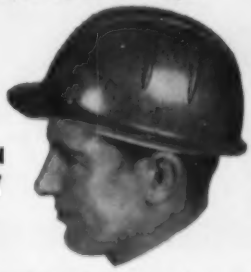
EXCLUSIVE . . . Headband of Extruded Plastic, Cork-Lined Sweatband

Plastic Headband allows immediate, positive adjustment, is clearly marked in hat sizes, holds its shape, and gives firm fit on all sizes of heads. Straps of webbing button to inside of hat shell, and provide adjustable support on top of the head. They provide the required safe distance between top of head and hat shell and leave ample room for ventilation all around.

JACKSON SAFETY HAT

SH-1

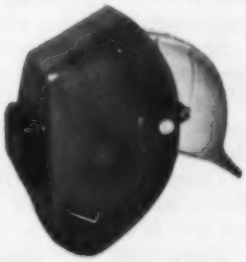
Strongly ribbed crown design and full brim resist impact from all sides. Fiber glass plastic gives the greatest protection per ounce of weight.



JACKSON SAFETY CAP

SC-1

Identical with the Safety Hat but with only a narrow brim at sides and back, and a visor protecting the face. Weight 12¼ ounces.



JACKSON CAP-AND-HELMET

SCH3-P

Type H3-P Helmet combined with Safety Cap. New high-impact plastic lens holder permits no current to pass through the helmet, is 2 oz. lighter.

JACKSON CAP-AND-HELMET

SCH-2

Lift-Front Helmet, type H-2, permitting work inspection without raising of entire helmet, pivoted to Safety Cap. Units are detachable without tools.

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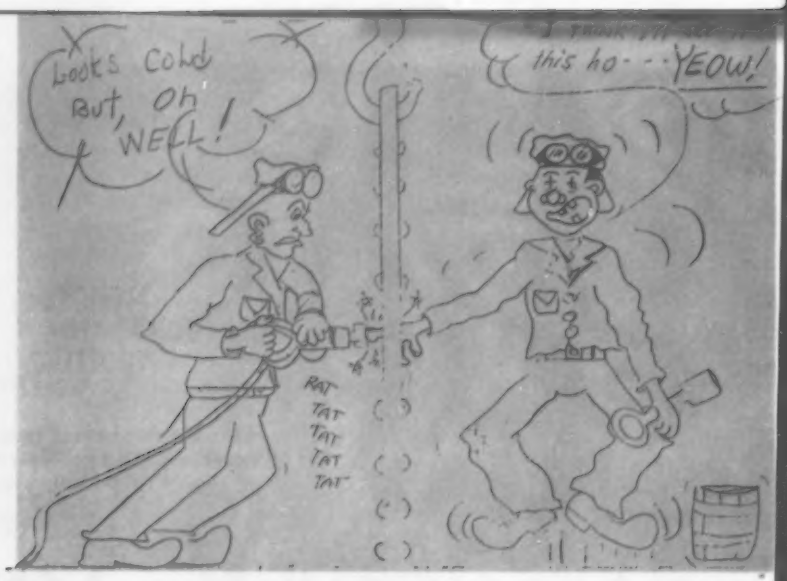
PRODUCTS, INC.
WARREN • MICHIGAN

Sold World Wide . . . through Distributors and Dealers

Tony Ignazio (r.) at his boiler shop drawing board with Foreman Frank Richards.



Boiler Shop Art Tells a Safety Message

AS a punch press operator at the Youngstown Sheet and Tube Co., Youngstown, O., Tony Ignazio indulged his hobby of cartooning only for the entertainment of his friends. That is, until a few months ago, when Foreman Frank Richards suggested he make a safety cartoon.

Shown here are some of the drawings Tony has prepared for Youngstown's Brier Hill Boiler Shop. What they may lack in technique they more than make up for in originality and effectiveness, and that's what counts.

There's an idea here, as well as a safety point. Every plant can boast of talent like Tony's. Why not put it to work in your company?

Encourage your amateur artists, your would-be Ogden Nashes, your budding Berlins. A cartoon, poem, or song with a light touch can often prevent more accidents than a half-dozen safety lectures . . . especially when everyone knows that local talent produced it.

Moccasin-toe Jaguar (S-4375). Racy, dress-weight blucher, cut smart and low. In brandy glove-grain. Leather-lined steel toe box.

Who'd ever guess this cool, low-cut Thom McAn Jaguar is a safety shoe?

LOOK at the racy design of this modern new Thom McAn. It's sporty. Low-cut. Cool. Yet inside it has all the steel-toed strength of the most rugged safety shoe.

Thom McAn has designed the Jaguar as a shoe your men can wear *after* work as well as on the job. Unlike cumbersome, old-fashioned safety shoes, the Jaguar is identical in style to dress shoes costing up to twice the price!

It is built to be cool and comfortable in hottest weather and working conditions. Its sturdy steel toe box is leather-lined to protect feet and socks from chafing. And the Jaguar is guaranteed to take a lot of strain out of standing work.

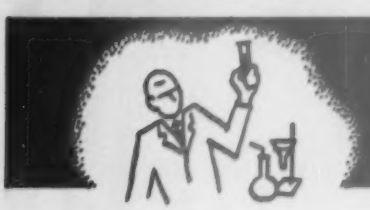
Consider, too, the Jaguar's combination of fine workmanship, top quality, long-wearing leather and famous low money-saving price, and you'll begin to see why Thom McAn's so good it's the best-selling shoe in *all* America.

SOLD TWO WAYS: 1. At Thom McAn Stores. **2.** Direct to your plant. Send today for details of our money-saving plant-sale plan and Thom McAn's 4-way employee purchase plan — plus descriptions of the Thom McAn Safety Shoe line. Write: Thom McAn Safety Division, 25 W. 43rd St., N.Y. 36, N.Y.

© 1955 Melville Shoe Corporation

Thom McAn
SAFETY SHOES
A Division of the Melville Shoe Corporation

INDUSTRIAL HEALTH



Abstracts of current literature on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA
Industrial Department, NSC

Trichloroethylene Toxicity

Toxicity of Trichloroethylene Extracted Soy Bean Oil Meal, by Joseph C. Picken, Jr., Norman L. Jacobson, Robert S. Allen and Harry E. Bister, Paul C. Bennett, Leonard L. McKinney and John C. Cowan. The Journal of Agricultural and Food Chemistry 3: 420-424 (May 1955).

The oxidation products of trichloroethylene described in another article have been used to treat soy bean oil meal and certain other materials in an attempt to determine their toxicity. The toxicity was determined by feeding the materials to young calves and observing them for signs of the aplastic anemia associated with trichloroethylene extracted soy bean oil meal.

It was determined that running the commercial meal through the extraction process three times did not significantly increase its toxicity, nor significantly decrease. Treating the meal from the commercial process at a temperature lowered so that it emerged at 120 centigrade also did not significantly change the toxicity.

When commercially beef added soy bean oil flakes were treated with oxidized trichloroethylene the calves developed hemorrhagic reactions in some cases and not in others. These reactions were rather inconclusive.

Treatment of a commercial sample of casein with the oxidized trichloroethylene also produced a toxic feed which produced a disease quite similar to that produced by soy bean meal and which was quite rapidly fatal. This indicates that the formation of toxic material might occur in the protein of materials other than soy beans and it is probable that it is the protein fraction of the soy bean oil meal which produces the toxicity.

Stack Height

Stacks: How High Will They Go? By Arthur M. Clark. The Engineering News Record, Vol. 154, No. 19, p. 47-48. (May 12, 1955).

Since air pollution has become a major public health, industrial and political problem and since air pollution comes very largely from stacks and chimneys the trend of recent years has been toward higher stacks.

It should be noted the best way to eliminate air pollution from stack influence is to eliminate it from the gases before they are released to the stack. Since this is often expensive and can be avoided it is very common to simply use tall stacks and discharge the material at heights where they will be sufficiently diluted before returning to the surface.

Tall stacks were really started with the 506-foot high chimney with an internal diameter of 50 feet at the top built for Anaconda Copper Mining Company at Great Falls, Montana in 1908. Many tall brick chimneys were built during the following 20 years including one 585 feet high at the Anaconda Copper Mining Company, Anaconda Montana Plant. This is still the largest chimney in the world although it is not the tallest.

Since the improvements in concrete design during the 1920's have made it possible to build tall reinforced concrete chimneys it is coming to be a preferred material and concrete chimneys up to 600 feet high were built in the 1930's and 1940's.

In 1954 a reinforced concrete chimney 637 feet high was constructed by the International Nickel Company of Canada at Copper Cliff, Ontario.

Since the electric power industry is burning more and cheaper fuels with a high percentage of sulphur they have also gone into the production of very tall stacks to dissipate the sulphur dioxide formed. In December of 1954 the first of three reinforced concrete chimneys was completed at the Clifty Creek Plant of the Ohio Electric Corporation of Madison, Indiana. These stacks are 630 feet above the ground but actually 707 feet above their foundations.

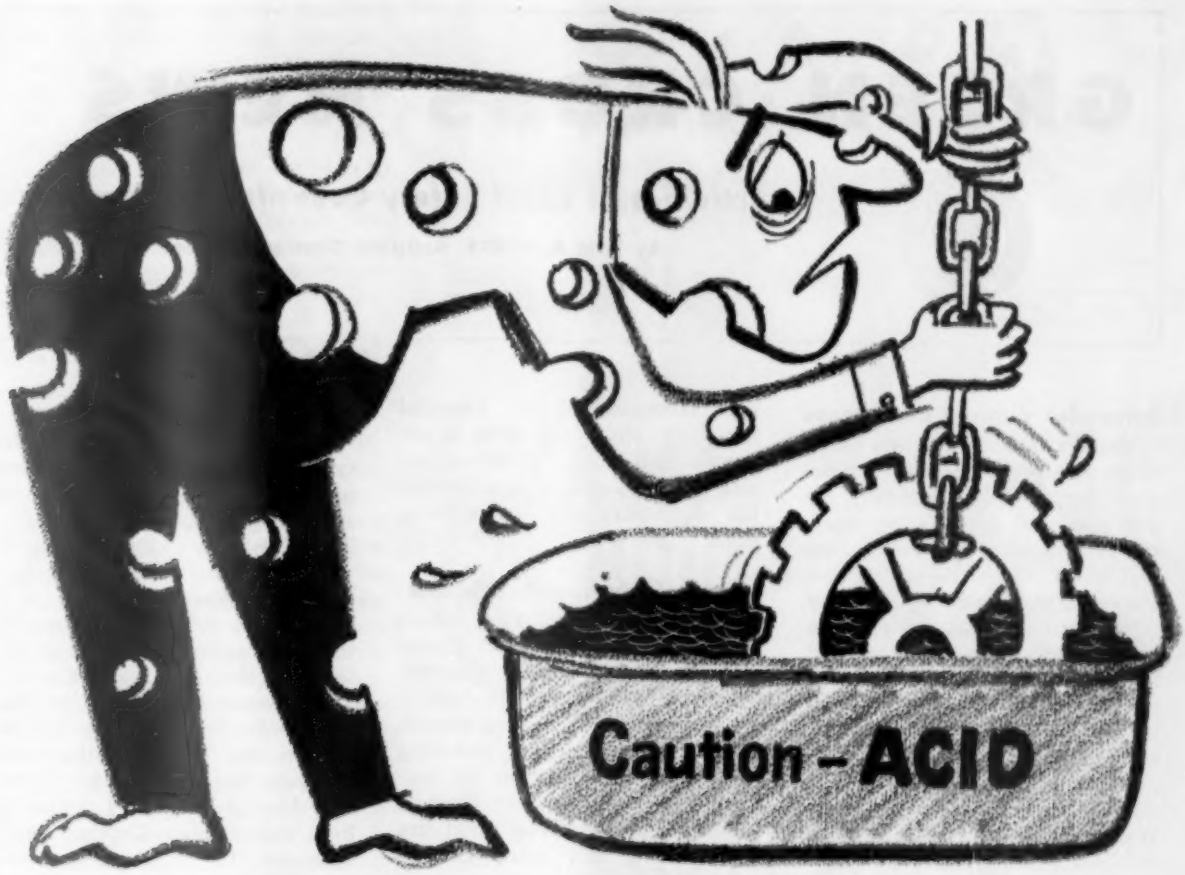
With present engineering knowledge it seems relatively safe to predict that stacks as high as 1,000 feet will be built before the trend stops. At the present time it seems that over 1,000 feet it would become regularly more economical to remove the contaminance from the air stream than to attempt to dissipate them through a tall chimney.

Air Pollution

State Air Pollution Control Activities. By Richard L. Woodward. Public Health Report 70: 433-436 (May 1955).

Since the end of World War II there has been a great increase in interest in air pollution and in activities aimed at its control. Although the problem has been traditionally considered one for local action, in many places the need for state assistance to local governments has become apparent. State assistance is also needed to deal with problems when local control agencies are

—To page 103



MEET "SWISS-CHEESE" JOHNSON

Too much ventilation is unhealthy on some jobs. Unnecessary, too, when protective clothing coated with neoprene is available. Men who work with corrosive liquids appreciate the complete protection this heavy-duty clothing gives them . . . management welcomes the man-hours saved. For neoprene resists attack from hot acids and chemicals . . . keeps fumes and accidental splashes safely on the outside. And because neoprene resists flex cracking, clothing *retains* effectiveness.

When you specify rubber goods made with NEOPRENE . . . you get *all* these safety features:

- **RESISTANCE TO OIL, GREASE, AND MOST CHEMICALS**—neoprene protects against deteriorating agents
- **FLAME RETARDANCE**—neoprene won't support combustion
- **ABRASION RESISTANCE**—neoprene is strong and tough!
- **HEAT RESISTANCE**—neoprene won't soften
- **RESISTANCE TO SUNLIGHT, WEATHERING, AND OXIDATION**—neoprene won't soften or crack

While Du Pont does not make finished products of neoprene, your rubber-goods manufacturer or distributor will gladly tell you about the neoprene products he supplies.

FREE! THE NEOPRENE NOTEBOOK

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Wilmington 98, Delaware

Please put my name on the free mailing list for the Neoprene Notebook—containing stories, illustrated case histories and new applications of neoprene.

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NEOPRENE

The rubber made by Du Pont since 1932

DU PONT

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BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

GREEN CROSS NEWS

Activities of Local Safety Councils and Chapters

By TOM A. BURKE, Assistant Director, Western Region, NSC

Successful Virginia Conference

The 21st annual Virginia Statewide Safety Conference, sponsored by the Virginia Safety Association and cooperating agencies, was held in Richmond June 2, 3 and 4. As in the past, strong emphasis was given to industrial safety problems and these sessions included aviation, railroad, mining, marine, electrical, woodworking, fire prevention and protection, fertilizer and a general industrial session.

Governor Thomas B. Stanley served as general chairman and in the keynote address he praised the long history and accomplishments of the Conference and stated that its two-fold objective was to teach safety and in so doing, "make all Virginians safety conscious." Victor B. Fitzpatrick, president of the Association, presided and Col. William M. Myers was executive secretary, a post he has filled for many years.

In addition to the industrial programs, sessions were held in the fields of traffic, law enforcement, commercial vehicle, farm and public information.

Seibert Leaves Seattle Council

Paul W. Seibert, who has been managing director of the Seattle-King County Safety Council for the past several years, has resigned from the organization to accept a post with Frederick E. Baker and Associates, an advertising and public relations firm in Seattle. His resignation became effective June 15. At the time this was written his successor had not been announced.

Under Seibert's able administration, the Seattle Council has greatly expanded its activities and strengthened its financial structure. His background of experience in public relations and public information equips him for his new duties in the advertising field.

Dayton's Annual Fire School

The third Annual Fire School sponsored by the Dayton Chamber of Commerce Safety Council, was held in the Ohio city June 3. Several thousand persons attended the all-day program, including volunteer firemen from all sections of Montgomery County, members of industrial plant fire departments and many citizens who came to learn more about home fire prevention and protection. Some of the nation's outstanding authorities on fire fighting and fire prevention techniques were among the participants. The all-day program was pointed at industrial and home fire prevention methods. Spectacular demonstrations climaxed the informative discussions.

New Low in Frequency

The remarkable low frequency rate of 5.77 is reported for the first two months in the current competition of the Greater Los Angeles Chapter's Seventh Annual Industrial Safety Contest. The project now enjoys the participation of 347 companies in the Greater Los Angeles area which currently have 497,788 employees. The rate for the first two months of the previous contest was 7.04. The new low of 5.77 is the best for any similar period since the contest was organized. Before many weeks the half million mark will be reached in employee participation.

"Hop-Scotch" Conference

The Eastern Pennsylvania Safety Conference has the distinction of being held in three cities instead of just one as is customary. The Conference has grown in magnitude and importance during recent years so that now it is advisable to stage it in the heavily industrialized "tri-cities" of Allentown, Bethlehem and Easton.

This year's big meeting on May 2, 3 and 4 was the 28th annual session and a large attendance was reported by Secretary-Treasurer Harold R. Seward of the Lehigh Valley Safety Council, which sponsors the Conference. More than 1,000 persons attended this year's banquet, held at Moravian College, Bethlehem, May 4. Dr. Ralph Casper Hutchinson, president of Lafayette College, was the speaker. Harry N. Crowder, president of the safety council, presided at the banquet.

"Action" Theme at Stockton

The theme of the First Annual San Joaquin County Safety Conference held recently in Stockton, Calif., was "Recommendations for Action." E. D. Maloney, vice president and general manager of the Northern California and Nevada Telephone and Telegraph Company was the keynote speaker discussing "A Sure Cure for Accidents: Prevention." The industrial group placed emphasis on job instruction, uniform reporting for occupational accidents and basic factors in safe production.

Traffic subjects discussed at panel sessions included radar and speed control, drunk driving and standardized methods of determining alcoholic content. Motor Transportation subjects included

screening and training operators, accident reporting and stimulating driver interest. The Farm sessions analyzed trailer hazards and problems of material handling.

Panels also were held for schools, women's activities and recreation and water safety. Executive Secretary Lovilla Lalor reports a registered attendance of approximately 300.

Which Cross—Green or White?

Such was the $64 question asked in Cleveland during May when the query was widely publicized as the slogan of the annual Green Cross dollar drive sponsored by the Greater Cleveland Safety Council. In a recent issue, the *Cleveland Plain Dealer* featured an editorial page cartoon captioned "Tie A Knot in Your Hanky" as a reminder to contribute to the 1955 membership campaign. It was expected that the one-month drive would bring in dollar bills and safety pledges from 85,000 citizens. Mayor Anthony J. Celebrezze served as honorary chairman and Paul J. Hoover, a leading merchant, was general chairman.

Lippold Succeeds Weller

Paul E. Lippold, well known police officer of Portland, Ore., has been named by the Civil Service Bureau to succeed William J. Weller as director of the Portland Traffic Safety Commission. Weller resigned recently to become assistant city engineer, the field in which he was formerly engaged.

Sergeant Lippold has been with the police department for 13 years and for the past eight years has had charge of the Bureau's safety education work in the schools. He is a native of Iowa and has been a Portland resident since 1930. Following his graduation from high school, he attended Montana State University, Multnomah College and Northwestern College of law. He was traffic analyst for the Police Bureau for several years and is a veteran of World War II who saw action in North Africa and Europe. Lippold is president of the Portland Lutheran Education Association. *—To page 126*

Scott Air-Paks
Cut Repair and Maintenance Costs, Safely!

Right — Old Method. Blowing air into chemical storage tank for 24 hours before man can safely enter.

Below — No Waiting. No Down Time with Scott Air-Pak protection. Man enters and does the job immediately, safely.

SAVED 24 HOURS on every Tank Cleaning Job

• Many times an old established practice is accepted as "The way it has always been done". No attempt is made to change it. Blowing air into a chemical storage tank from 12 to 24 hours before permitting a man to enter to clean or paint it, is a typical example! It's a slow and costly method. How much simpler and lower in cost to equip a man with a Scott Air-Pak — open the tank and let him go to work Immediately — Safely and Quickly!

On Hazardous Jobs Scott Air-Paks Help Management and Labor Breathe Easier

Does tank cleaning and painting play a part in your process? Let us tell you more about the Scott Air-Pak Way.

Write for free booklet "Scott Air-Paks Save Money, Man Hours and Men for Industry!"

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FOR SAFETY—FOR SERVICE

SAFETY EQUIPMENT DIVISION
SCOTT AVIATION CORP.

211 ERIE STREET LANCASTER, N. Y.

Canada: Safety Supply Co., Toronto — Branches in principal cities
Export: Southern Oxygen Co., 15 West 57th Street, New York 19, N. Y.

Wins Fifth Award of Honor

THE AWARD OF HONOR, highest recognition given by the National Safety Council for achievement in safety, was presented to the United States Air Force April 6 for the fifth consecutive year. General Thomas D. White, Vice-Chief of Staff, received the award in a presentation ceremony at the Pentagon from Ned H. Dearborn, President of the National Safety Council.

Participating in the ceremonies were Lt. General Emmett O'Donnell, Deputy Chief of Staff/Personnel, and Will L. Tubbs, Colonel, USAF (Ret), Assistant for Ground Safety for the USAF since 1948.

Data on which the award was based reveal that the reduced accident experience actually resulted in the saving of life, time, property and money. Based on actual man-hours of exposure to accidents, civilian employee on-duty injuries were reduced 35 per cent and civilian employee on-duty fatalities by more than 50 per cent; based on man-days of exposure, on- and off-duty injuries to military personnel were reduced 4.5 per cent and on- and off-duty fatalities to military personnel were reduced 7.5 per cent; based on actual government vehicle miles operated, USAF motor vehicle accidents were reduced 24 per cent. These reductions in 1954 represent a savings of $4.44 per person when compared to the average per capita cost of ground accidents for the previous two years. Multiplied by the average strength of the Air Force during 1954, this amounts to an actual cash return of 5 million dollars.

Reductio ad Absurdum

The syndicated writer on health and psychology, Dr. George W. Crane, reports seeing this sign in a hotel room:

IF YOU PLAN TO SMOKE IN BED

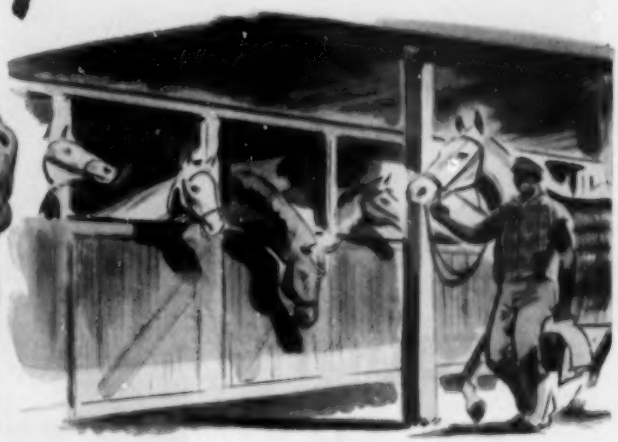
—Inform the hotel desk where to send your remains.
—Leave a list of your nearest relatives at the desk.
—Leave your last will and testament with the clerk.
—Check your insurance policy, making sure the premium is paid.
—Inform the guests on each side of you of your intentions to endanger their lives.
—Advise others on your floor to check the nearest fire escape or exit.
—Have a fire extinguisher near at hand.
—Call the local fire department and ask them to stand by for a fire-call from your hotel.

This warning to bedroom smokers illustrates a technique of logic known as "reductio ad absurdum," meaning to "reduce to absurdity" or "make it ridiculous." It is used here effectively by the Fire Prevention Bureau of Miami, Fla.

the LIGHTER SIDE
NATIONAL SAFETY COUNCIL
YOU'RE SITTING MIGHTY CLOSE TO THAT WELDER, JOE.... BETTER PUT ON THESE FLASH GOGGLES!
LISTEN, STUPID! NEXT TIME I FIND BROKEN GLASS IN YOUR WASTE BASKET I'M GOING TO THE BIG BOSS!
HE WAS ADJUSTING A RUNNING MACHINE AND HIS SHIRT GOT CAUGHT. THE GUY HASN'T GOT ALL HIS BUTTONS!

A race track is the only place to find windows that clean people.

19 Thoroughbreds



. . . in the stable, yet this one is the favorite.

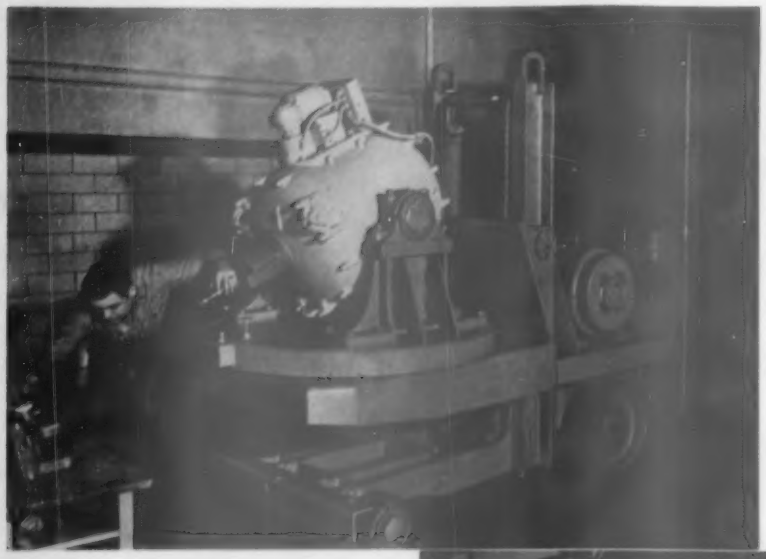
Favorites are made by top performance, whether they are horses or steel toes.

All of our 19 styles of austempered steel toes are *thoroughbreds*, each one precision-built from the finest high carbon steel.

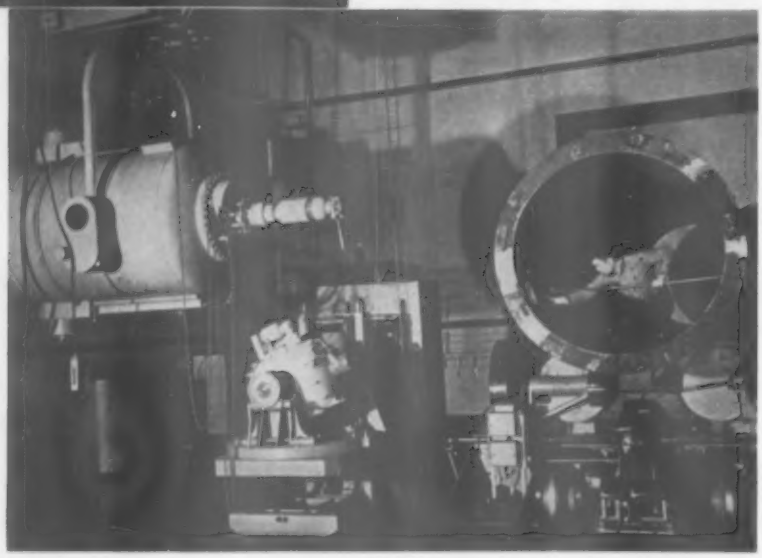
Out of our stable of steel toes WINGUARDS are the top performers.

Safety Box Toe Company

[illegible] STATE BUILDING • BOSTON



The Isoscope, which uses radioactive cobalt and can radiograph thicknesses of steel up to seven inches, is being aimed at a test specimen. It requires only one-third the exposure time of a million-volt X-ray unit. The lead cab at the rear provides protection for the operator and contains controls.



Radiographing the thick steel walls of a pressure vessel with an Isoscope. Suspended from the ceiling at the left of the Isoscope is a two-million-volt X-ray machine.

It Sees Through Steel

Equipment permits accurate tests and protects operator

A NEW inspection tool which makes use of radioactive Cobalt and is capable of radiographing—or "seeing through"—thicknesses of steel up to seven inches, has been developed by The Babcock & Wilcox Company, Barberton, Ohio. The unit has been christened the "Isoscope," a derivation of the words "isotope," a radioactive material, and "scope," for the power to see through metals.

The "Isoscope," which has been under study and development for the past three years, requires only one-third the exposure time of a million volt X-ray unit, the company states, and paves the way for wider use of atomic energy in this industrial application.

The largest allocation of radioactive Cobalt 60 yet authorized to industry for radiographic work was assigned to Babcock & Wilcox for the "Isoscope" at Oak Ridge National Laboratory on October 11, 1954. The material was loaded into a special dual-purpose spherical lead container designed and built by B&W's Barberton works to handle the radioactive material during shipment. The container is converted into a part of the radiographic machine upon arrival at its destination.

The lead sphere of the "Isoscope" is encased in a steel jacket having a cylindrical rotor section built into it. By revolving the rotor 180 degrees the radioactive source can be brought from the "safe" position to a point in line with the coned opening in the steel jacket allowing a beam of radiation to escape. This, in effect, results in a unit which can be turned "on" and "off."

The total charge placed in this unit was 1,008 curies of Cobalt 60. The charge is comprised of small discs stacked one on top of the other like coins in a coin changer. The radiation is taken from the

Stonehouse SIGNS FOR INDUSTRIAL ACCIDENT PREVENTION

Safety on the March

Now, more than ever, Safety and Efficiency go hand in hand. Workers in Industry have proved that the safe worker is far more efficient—in higher production and morale.

STONEHOUSE SIGNS

Throughout Industry these signs make a powerful contribution to safe working. They educate, impress, safeguard workers on the job. There are hundreds of Stonehouse stock wordings. Special wordings are also produced to customer specifications.

Our complete Catalog—64 pages, in full color—free on request.

Stonehouse

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"Signs Since 1863"

Denver 4, Colorado

top of this stack so that the focal spot size compares favorably with existing high voltage X-ray equipment.

The balance of the "Isoscope" consists of a modified electric platform lift truck having a "lead cab" built on the back and a "turntable" mounted on the front platform. Trunnions on the turntable receive the lead ball containing the radioactive material. Cover plates mounted on top and bottom of the lead balls carry the cylindrical rotating mechanism. This assembled unit can be raised or lowered through eight feet, rotated vertically through 210 degrees and horizontally through 360 degrees.

The lead cab provides protection for the operator and contains controls for the operation of the machine. The controls consist of a timer, an "on"-"off" button and a green, amber, and red light system which informs the operator of the position of his source at all times.

A few of the outstanding advantages of this unit over high voltage X-ray equipment, as brought out in the announcement, are as follows:

1. Lower initial cost.
2. Less shielding necessary for secondary radiation.
3. Greater mobility.
4. Maintenance and operating costs are a known factor and can be predetermined. This predetermination cannot be accurately made for the one and two million volt radiographic equipment.
5. A mechanical breakdown would not stop the examination being made since the "Isoscope" may be operated manually and the examination completed before mechanical repair is attempted.
6. Simplicity of controls eliminates the need of a highly trained technician for operation of equipment.

Caution Label Not Enough Chemical Makers Told

Manufacturers of chemical products going into the home have been urged to launch an educational campaign among consumers on safe drug handling.

Simple caution statements on labels are not enough, Robert J. Morse, attorney for Boyle-Midway, Inc., of New York, told members of the Chemical Specialties Manufacturers' Association at their 41st midyear meeting in Chicago. Labels, he said, should show not only the composition of ingredients that might be potentially harmful if accidentally swallowed but also should include an affirmative statement of hazards and, where necessary, a clear statement of the recommended antidote.

Speaking as vice-chairman of the association's precautionary labeling and legislative committee, Morse pointed to the large number of state labeling regulations now in effect or being considered and said conflicts existed which could lead to almost impossible conditions for manufacturers selling in a large number of states. He urged chemical manufacturers to adhere voluntarily to the New York State and New York City Hazardous Substances Laws and Regulations as among the most inclusive regulations now in effect.

SUMMERTIME WAGES OF THE MAN WHO NEVER COMES TO WORK!

When the mercury climbs towards 100°, production slows down, efficiency drops, and workers tire quickly. It may take 10 men to do the work of nine . . . and you pay for that missing man!

StaSafe Koolpads, costing only pennies, can turn that labor loss into a production profit. Koolpads cut idle time to a minimum by soaking up tremendous quantities of sweat. In fact, tests prove that Koolpads absorb nearly 6 times their weight in water. This high absorbency virtually eliminates production "time-outs" to mop brows and wipe glasses. Men work without frequent, profit-robbing "heat slowdowns." As you know, improved efficiency always means higher production and greater profits.

And don't forget that Koolpads are economical . . . they can be rinsed and washed in seconds for use over and over again.

Write today for a **FREE** sample Koolpad. You will be surprised at the absorbency of these lightweight, low-cost profit-savers.

STANDARD SAFETY EQUIPMENT COMPANY
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NEWARK 4, N. J. 397 BROADWAY
CLEVELAND 10, OHIO 855 EAST 152nd ST.
LOS ANGELES 16, CAL. 2952 CRENSHAW BLVD.

Obituary

WILL D. JENKINS

WILL D. JENKINS, the "father" of industrial safety in British Columbia died at Pearson T. B. Hospital, May 26. He had been ill for a considerable time.

Born in Bellingham, Wash., Mr. Jenkins came to B. C. as a young man in 1920 and entered the field of industrial accident prevention.

His main work was in sawmill safety. In 1924 he was responsible for organizing the safety department of the British Columbia Lumber Manufacturers' Association, which he directed until his retirement in 1949.

Known by safety engineers in the Pacific Northwest as "the dean of safety," Mr. Jenkins contributed greatly to the work of the National Safety Council. He was also one of the founders of the Western Safety Conference and the Western Forest Products Safety Conference, both international bodies.

In 1947 he received the first citation of its kind from the Western Safety Conference for his efforts in conserving human life and property. Mr. Jenkins was one of the originators of the B. C. Safety Council, serving as president, and becoming an honorary life member.

Mr. Jenkins is survived by his sister, Mrs. Buda Brown, of Vancouver.

WALTER J. GRAVES

WALTER J. GRAVES, retired safety engineer and pioneer in industrial safety, died March 7 at the age of 85.

A graduate of the School of Engineering at Cornell University, Mr. Graves joined the Engineers Corps of the U. S. Army after four years in railroad work. During his 18 years with the Army he gained recognition for his work on the Sault Ste. Marie locks project.

In 1918 he became the first safety director for Michigan Mutual Liability Company. Widely known for his safety writings, Mr. Graves authored many articles on specific hazards which are accepted as standard practice. He was one of the first members of the American Society of Safety Engineers. In addition he held membership in numerous national engineering societies.

Interment was in Adrian, Mich. He is survived by a son, Joseph, and two daughters, Mrs. Sara Gladden and Mrs. Kirwin F. Everngam.

JOHN S. LILLIS

JOHN S. LILLIS, well known in safety work in and around Bridgeport, Conn., died May 10.

Mr. Lillis was associated with the Bridgeport Brass Co., for many years in safety and was one of the first persons in the city of Bridgeport to teach first aid. He directed many safety activities and assisted with safety programs in the Bridgeport area.

CAN WRECK YOUR PLANT!

Dust, lint and other contaminations in your ventilating system and superstructures can wreck your plant. (Remember Livonia!) These fire hazards should be removed by experienced fire reduction specialists.

This Could Be YOUR Production Record
. . . And It Could Happen Today!

At nominal cost, Guardian Fire Reduction Company renders fire reduction service by means of pneumatic decontamination executed by trained technicians—and without interrupting your normal operations. As the pioneer and leader in the highly specialized field of pneumatic vacuuming for fire and explosion reduction control we solicit your inquiry.

WRITE *Today*

Regardless of your location we will send a representative to survey your requirements and submit recommendations and estimates—without obligation. Our services are nation-wide.

GUARDIAN
Fire Reduction Company
HOME OFFICE: LITTLE ROCK, ARKANSAS

Fire & Explosion Control
SERVICES

See our catalog in Sweet's Plant Engineering File 7b/Gu

SAFETY FILMS

For further information on publications or films listed here, write Nancy Lou Blitzen, Film Consultant, Membership Service Bureau, National Safety Council

Protective Equipment

One To A Customer (16mm sound motion) black & white. 11 min. Production date, 1955.

This film compares the wearing of personal protective equipment by workers to the nation's athletes who guard themselves against injury on playing fields with similar safety equipment. It illustrates many different types of industrial safety equipment for both men and women workers. It also shows the specific hazards eliminated by different equipment.

Prints are available for loan from Aetna Life Affiliated Companies, Public Education Department, Hartford 15, Conn.

Shop Safety: Training

Industrial Arts: Shop Safety (16mm sound motion) black & white. 10 min. Production date, 1955.

Although the film was primarily planned to teach industrial arts students about shop safety, many of the points shown are very applicable to industry as a whole. Safe handling of tools, welding equipment, marking off work areas, housekeeping and proper clothing are all shown. Machine operation and guarding are also covered.

Prints may be obtained for purchase and rental from Young America Films, Inc., 18 E. 41st Street, New York 17, N. Y.

Supermarkets

Don't Gamble With Fire (35 mm sound slidefilm) black & white. 10 min. Production date, 1954.

This filmstrip and record illustrates the precautions that must be taken to make supermarkets safe from fire. In several amusing sequences, a very careless overseer does all the wrong things to protect his establishment against fire. A comparison is made between him and a safe man who checks everything for possible fire hazards.

Prints are available from Ladd Visual Service, 235 Stuart Street, Boston, Mass., for loan.

Hospitals

We Who Work In Hospitals (35 mm sound slidefilm) black & white. 22 min. Production date, 1954.

Shows how a hospital can plan an accident prevention program for patients and personnel. Much emphasis on fire and fall hazards, as well.

Prints can be purchased or loaned from Liberty Mutual Insurance Company, 175 Berkeley Street, Boston, Mass.

An Important Correction for the 1955 issue of the *National Directory of Safety Films* which appeared in the June issue of NATIONAL SAFETY NEWS. The source

for the film shown on the top left-hand part of page N-24 is incorrect. It should be deleted as the film *Escape From Limbo* is available from Unifilms, Inc., 146 E. 47th St., New York 17, N. Y., and not from Sarra, Inc., as listed.

Entering and Working In Enclosed Areas

UNDERSTANDING the dangers and applying a few safe practices when entering or working in enclosed spaces such as manholes, tanks, and deep pits can prevent a tragic accident.

What is in that manhole, pit, or tank that's so dangerous? Oddly enough, the answer may be "nothing." No poisonous agent need be present; a lack of oxygen can be just as fatal as the most toxic gas known to man.

Other dangers may result from the presence of an asphyxiant gas, such as carbon monoxide; a toxic gas, such as hydrogen sulfide, or an explosive gas, such as methane. These are all naturally occurring gases and may be generated by decaying organic matter—particularly in deep manholes or pits.

Leakage from natural gas lines is another major source of air contamination.

Material remaining in storage tanks after draining and ventilation frequently creates a noxious or explosive atmosphere through vaporization or reaction with oxygen, cleaning materials, water, etc. Another hazard is created by the equipment and materials used by workers in enclosed spaces. Certain solvents, cleaning agents and torches may generate toxic gases or seriously deplete the oxygen supply.

Here are some practical safety measures which can prevent these hazards or remove them once they exist:

1. Ventilate the area thoroughly with fresh air. Use a blower if necessary.

2. Never work in a tightly enclosed space out of contact, physical or visual, with a co-worker located outside. One of the best means of contact is a rope securely tied about the waist and held at the other end by a co-worker.

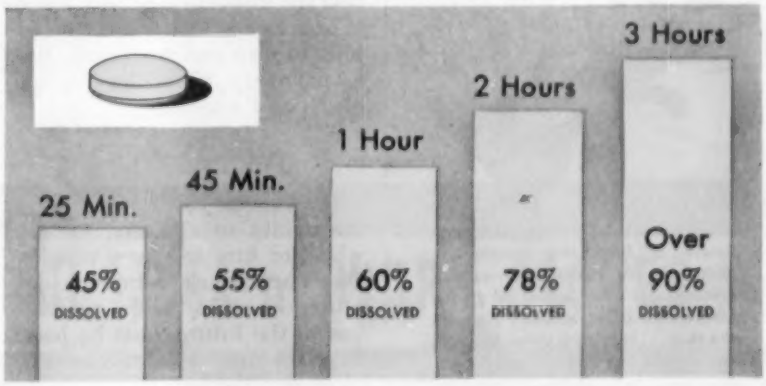
3. Never enter an enclosed space to aid a stricken companion without proper respiratory apparatus. The air-supplied mask is safest, for it protects against oxygen deficiency as well as toxic gases. If no equipment is available, entering without protection may mean another casualty. Get assistance.

4. Never use solvents, cleaners, or flames in any tank, manhole or pit without proper respiratory equipment and ample ventilation. Awareness of toxic fumes or vapors or lack of oxygen may come too late to get out.

One reason the big apples are always on the top of the basket is because there are so many little apples holding them up.

Controlled dissolving action is the reason Morton Impregnated Salt Tablets give fast relief—without nausea

This chart shows the controlled dissolving rate of a typical Morton Impregnated Salt Tablet



Within minutes, the average person begins to feel better, work better, when he takes Morton Impregnated Salt Tablets. For as soon as the tablets are taken, essential body salt lost through perspiration begins to be replaced—but at a gradual rate, so as not to cause nausea.

For more than three hours after Morton Impregnated Salt Tablets are taken, they continue to fight heat fatigue by supplying salt. Careful, uniform coating of the salt crystals in each tablet results in controlled dissolving action—the reason Morton Salt Tablets give such excellent results.

Morton Yellow Impregnated Salt Tablets come in a handy, disposable dispenser. Plastic and heavy-duty aluminum dispensers are also available, as are plain salt tablets.

Place your order this week with your local safety equipment distributor. If he cannot supply you, write:

MORTON SALT COMPANY
Dept. NS-7, 120 South LaSalle Street
Chicago 3, Illinois

Complies with Federal Specifications
SS-S-31e for Type III, Class C
Impregnated Salt Tablets
U. S. Patent No. 2,665,236
Patented 1954 (Canada) No. 501,316

PRODUCTION
depends on Hands
Hands depend on
STEPAN pH-6
FOR SAFE, EFFECTIVE CLEANSING

pH-6 is a specially formulated, sulfonated oil, bland skin cleanser . . . amazingly effective in removing oils, greases, and other industrial grime. Lotion-like effect actually protects the skin . . . leaving it clean, smooth, and supple.

Neutra-Foam

New mild synthetic skin detergent with excellent foaming properties. Leaves no disagreeable soap odor on the skin.

You'll find both pH-6 and Neutra-Foam are surprisingly economical. Send coupon for literature and samples.

STEPAN CHEMICAL CO.

The Stepan Chemical Co.
20 N. Wacker Drive, Chicago 6, Illinois
Please send pH-6, Neutra-Foam literature and samples.

Name .....
Firm .....
Street Address .....
City and State .....

Quotable Quotes

By DR. J. L. ROSENSTEIN

To correct an error and prevent its recurrence, analyze the steps leading to the mistake. Discover whether instructions were clearly understood. Discover whether some personally troubling problem distracted the person. Have the worker suggest what he thinks should be done to prevent recurrence.

* * *

Beware of any so-called psychologist who makes claims for himself which the rest of the psychological fraternity do not accept. The American Psychological Association or the Psychological Corporation will be glad to cooperate in evaluating any claims of quacks and charlatans; this applies to such pseudoscientific bosh as palmistry, phrenology, graphology, and astrology.

* * *

Intelligence has been defined as the ability of a person to solve what for him is a new problem. One must consider in such definition the ability of the person to use in the future what he learns from the solution of problems.

* * *

Progress is not made by taking pride in our present standards but by critically examining these standards, hypothetically setting higher standards, and attempting to achieve them.

* * *

The important phase of testing rests in the ability of the examiner to judge or infer the meaning of the methods, techniques, and mannerisms displayed by the person taking the test.

* * *

Efficiency scores tell us how much a person has produced, but do not tell us why a person produced very little or a great deal.

Every job in a plant is or should be necessary and valuable to the industry or it should be eliminated. This makes every worker on every job an important individual.

* * *

Every man on every job should be so identified with his work that any criticism of the work should be considered criticism of himself and any improvement in the techniques of his job should be a source of pride and pleasure.

* * *

Every employee in a plant should be a salesman of the company name and the product manufactured. If he is not so identified with these that he will brook no criticism of them, then he has been let down by the management.

* * *

As long as labor and industry are permitted to continue to exist as two separate entities with diverse interests, just so long will there be labor problems and friction between the two. When they become identified as an emotional unity with a commonness of purpose and interest, labor difficulties will disappear.

* * *

It is not what you tell a man; it is what he gets that counts.

* * *

The efficiency curve of a worker is not merely a line on a chart pointing out how many items were produced in a fixed time. It is also a graphic picture of the physical condition of an employee and his mental attitude toward his work, his wages, his coworkers, his boss, and his company.

No one wants to worry but sometimes things make one worry. No worker wants to be disloyal but sometimes there are good reasons (real or imagined) for disloyalty and none for loyalty. No one is ever disloyal to a thing or idea with which he is identified.

* * *

Despite the great amount of time and space and publicity employed by industry to point out the value of loyalty, industry has done little in a systematic way to teach loyalty. Industry has taught fear of the results of disloyalty.

* * *

One of the most important nonmeasurable qualities to know about an employee relates to his stability, which may be described as the ability of the person to show constancy of behavior and dependability in maintaining his poise and calmness in the face of disturbing conditions.

It is not so important to know the efficiency of one girl as to know how this girl affects the efficiency of the group with which she works.

* * *

A high degree of intelligence is of little value without dependability because the instability may show itself at a time when stability is most necessary. Intelligence is of value only when it can be depended upon.

* * *

No one is ever loyal to anything unless he is emotionally attached to it, and no worker can be loyal to a job, a superior, or a plant unless emotionally he is identified with them.

* * *

Psychologists are agreed that, although some mental ailments are based on organic disturbances, most are caused by improper adjustment to the stresses and strains of living.

The psychopath or incurably unstable person is costly to industry and should have no place in competitive fields demanding steadiness, cooperation, consideration for the welfare and feelings of others, and control over one's emotional display.

* * *

No nervous breakdown or insanity can sneak up on a person and attack him suddenly. Mental ill health is a gradually built-up condition.

* * *

Those of us who do not strive and struggle but who sit back on our mental haunches avoiding or evading the fight of life are the ones who ultimately may become so maladjusted as to be called insane.

Dr. J. L. Rosenstein is assistant director of the Management Center, Marquette University.

HOOD makes all types of WORK GLOVES

7705
NEOPRENE COATED
Heavy duty coated without loss of flexibility.

PV-98
PLASTIC COATED
Standard weight, abrasive resistant, liquid-proof.

7703
NEOPRENE COATED
Industrial weight; curved, natural-fit fingers.

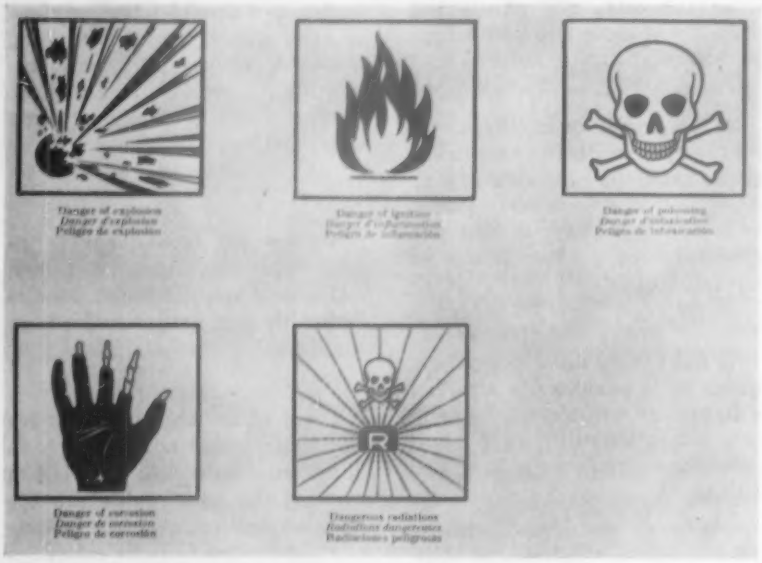
There's a HOOD GLOVE for every job – gauntlet, knit-wrist, mitten.

Write for FREE catalog — shows the RIGHT glove for EACH job.

HOOD RUBBER CO., Watertown, Mass.
a division of the B. F. Goodrich Company

RUBBER · NEOPRENE · PLASTIC COATED INDUSTRIAL GLOVES

They Mean Danger in Any Language



WARNING SYMBOLS adopted by the International Labour Organisation's Chemical Industries Committee during its fourth session recently concluded at Geneva, Switzerland. Government, employer and worker representatives of 21 leading chemical-producing countries took part. The ILO Governing Body has been asked to urge worldwide use of these symbols in marking dangerous substances.

The ILO is a specialised agency associated with the UN. (ILONews-photo)

Urge Uniform Labeling Of Hazardous Materials

UNIFORM LABELING of dangerous chemicals and drugs to alert users of the hazards in their improper handling was advocated by Sanford J. Hill of E. I. du Pont de Nemours and Co. at a meeting of the American Conference of Governmental Industrial Hygienists on "The Manufacturing Chemists' Association Labeling Program," as a part of the Industrial Health Conference.

"The tonnage of chemicals and allied products has grown fantastically in the last 30 years," Mr. Hill stated. "A new chemical or its related compounds may be useful in fields as widely separated as drugs and rocket fuels. As chemical products multiplied and, especially in the organic groups, grew more complex, it became increasingly evident that appropriate labeling was necessary to insure safe handling and use by customers.

"The Federal Caustic Poison Act and the various state poison and pharmacy acts chiefly relied in most cases wholly on the word 'poison' to warn the user. Since most chemicals covered by these laws are hazardous mainly by ingestion, the laws met an existing need but are hardly adequate for today's products."

Mr. Hill pointed out that the Manufacturing Chemists' Association began a labeling program in 1936. In April 1944, a permanent committee was appointed to handle this program, consisting of chemists, chemical engineers, physicians, toxicologists, lawyers, and salesmen. Specialists were consulted when certain unusual chemicals were up for discussion. Periodically, a manual called *Warning Labels — A Guide for the Preparation of Warning Labels for Hazardous Chemicals* was issued—a new edition being scheduled for this year. Industry has voluntarily adopted the program, although much remains to be done in a few areas.

Basically, the association believes that "poison" warnings should be strictly limited to those substances that are actually poisonous to human beings, according to Mr. Hill. However, as adequate human data are not easily obtained, the use of laboratory animals is now considered the most reliable method of ascertaining toxicity.

For instance, a substance is defined as a poison if it causes death within 48 hours in half or more of a group of 10 or more laboratory white rats weighing 200 to 300 grams at a single dose of 50 milligrams or less per kilogram of body weight when a given chemical is administered orally; or when administered by inhalation under certain conditions; or by continuous contact with the skin for 24 hours or more.

"Of necessity," Mr. Hill warned, "the definition is arbitrary and may be revised as the science of toxicology advances. In every case, data on human experience, when available, take precedence over animal data."

Calls National Conference On Job Safety for 1956

President Eisenhower will open the next President's Conference on Occupational Safety, which is scheduled to be held in Washington on May 14-16, 1956, the United States Department of Labor has announced.

Held biennially, this conference brings together leaders of American business, labor, Federal and State officials, insurance, education, and private safety organizations to devise cooperative means of further reducing occupational deaths and injuries.

The industries of primary concern to the conference include construction, manufacturing, utilities, finance, trade, service, and government. Steady declines in the injury frequency rate for manufacturing have been recorded for the past three years, reaching a new all-time low of 11.5 injuries per million man-hours worked in 1954. All-industry deaths and injuries likewise reached a new low last year.

SAFETY LENS QUALITY IS NEVER A LUXURY

Bausch & Lomb Y-70 all-acetate safety frame with Bal-SAFE lenses.

Bausch & Lomb glass technology insures an **EXTRA** margin of safety in Bal-**SAFE** lenses

For eye protection the lens is the thing. It may stand between a worker's precious vision—and tragic, eternal blackout.

You provide the finest protection science offers—when you specify Bausch & Lomb protective eyewear with Bal-SAFE impact-resistant lenses.

Only the finest glass is used—made in the nation's only plant devoted exclusively to production of optical glass—Bal-SAFE lenses are free from imperfections that can lead to disturbed vision, headaches and nausea. Bausch & Lomb heat treating methods insure the precise control necessary for a superior degree of impact resistance.

Acquaint yourself with Bausch & Lomb safety eyewear and with the extra quality of Bal-SAFE lenses. There's a representative in your area.

Now available

New Bal-SAFE Lens Impact Tester is ideal for demonstration at employee safety sessions. Hammer hits lens with force of ⅞" dia. steel ball dropped 50 inches. Bottom photo shows how unhardened lens is shattered. For price, ask your B&L Industrial Vision representative.

BAUSCH & LOMB

SINCE 1853

Just mail this coupon with your business letterhead to get your free copy of "Complete Eye Protection."

BAUSCH & LOMB OPTICAL COMPANY
90343 Smith St., Rochester 2, N. Y.

STOP ATHLETE'S FOOT

OVER 70%
of the largest manufacturers
USE ŌNOX®
SKIN - TOUGHENER
in shower rooms!

✔ BUILDS RESISTANCE
Main cause of Athlete's Foot is Shoe-Softened Skin (U. S. P. H. S. Bul. R-674). Ōnox toughens soft skin and makes it resistant to fungus attack.

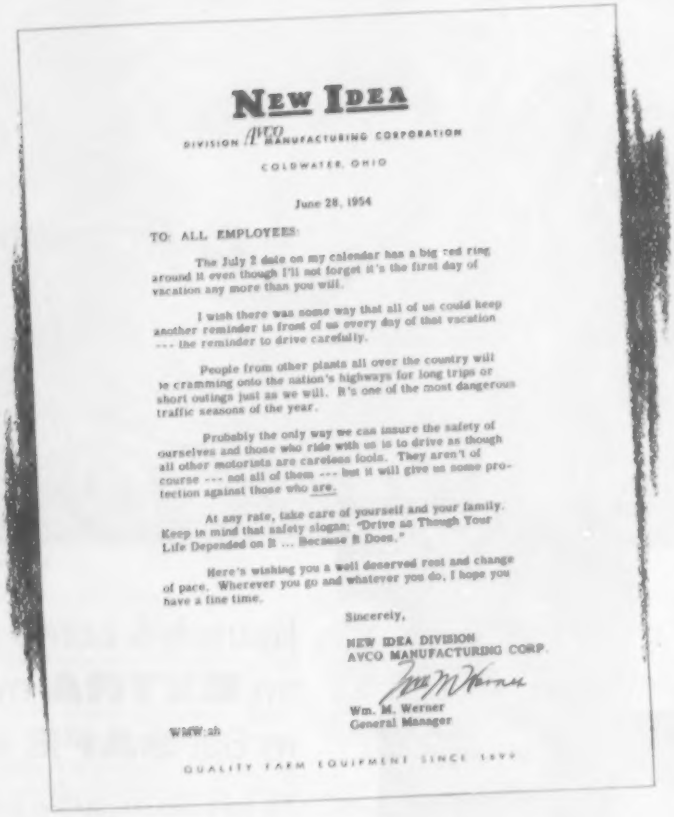
✔ EASY TO MAINTAIN
No splash — no mess — no waste. Nothing to get out of order. No testing of solution needed.

✔ ECONOMICAL
One mat serves 50 bathers per shift. One gallon Ōnox serves 50 daily bathers one month. Average cost—1¢ per man per week.

TRIAL OFFER
Order what you need. Use it for 60 days. Pay nothing unless fully satisfied.

ŌNOX, INC.
DEPT N, 125 SECOND STREET
SAN FRANCISCO 5, CALIFORNIA
Warehouses: BROOKLYN, CLEVELAND, NEW ORLEANS, HAWTHORNE, CALIF.

This New Idea Letter Is EVERYBODY'S BUSINESS!



NEW IDEA
DIVISION AVCO MANUFACTURING CORPORATION
COLDWATER, OHIO

June 28, 1954

TO: ALL EMPLOYEES:

The July 2 date on my calendar has a big red ring around it even though I'll not forget it's the first day of vacation any more than you will.

I wish there was some way that all of us could keep another reminder in front of us every day of that vacation --- the reminder to drive carefully.

People from other plants all over the country will be cramming onto the nation's highways for long trips or short outings just as we will. It's one of the most dangerous traffic seasons of the year.

Probably the only way we can insure the safety of ourselves and those who ride with us is to drive as though all other motorists are careless fools. They aren't of course --- not all of them --- but it will give us some protection against those who are.

At any rate, take care of yourself and your family. Keep in mind that safety slogan: "Drive as Though Your Life Depended on It ... Because It Does."

Here's wishing you a well deserved rest and change of pace. Wherever you go and whatever you do, I hope you have a fine time.

Sincerely,

NEW IDEA DIVISION
AVCO MANUFACTURING CORP.

Wm. M. Werner
General Manager

WMW:sh

QUALITY FARM EQUIPMENT SINCE 1899

on your vacation too — DRIVE CAREFULLY

EMPLOYEES and residents of Avco Manufacturing Corp. plant communities are kept informed about the company and its progress by advance proofs of company advertisements, which are mailed to the homes of employees one week in advance of publication.

The direct home mailing is part of a year-round public relations program, and each employee in the four plant communities, Coldwater, Ohio; Fort Dodge, Iowa; Collegeville, Pa.; and Sandwich, Ill.; is on the list. Topics of the ads range from contribution of the company's payroll to community welfare to the importance of research and development as it affects future job security.

From time to time, the advertisements reproduce letters to employees which the company believes would be of interest to residents of the community. One example of such a message is pictured here. It was distributed on the eve of Avco's plant-wide vacation shutdown, and was inspired by serious automobile accidents suffered by one company executive and the son of another official.

MICRO SWITCH Trip Control

A PRINCIPLE OF GOOD PRODUCTION

INCREASED PRODUCTION

Instant electrical response

•

Feather-touch operation

•

Easy control changes

•

Decreased operator fatigue

INCREASED SAFETY

Two hand operation

•

Cannot be "cheated"

•

Inoperable if any component fails

•

Interlock prevents power stroke while changing dies

Here's the safe, fast, productive two-hand Trip Control for the short run jobs

It takes *two hands* to operate MICRO SWITCH Trip Controls in commonly used small press set ups. This makes it the safe press control for short run jobs where the costly adjustment of safety guards is not practical.

Because *both hands must be out of the way* before the press ram can operate, operators work faster, easier and get more work done with MICRO SWITCH Trip Control. Fatigue is reduced as switches move but a fraction of an inch and require only slight pressure.

MICRO SWITCH Trip Controls can't be "cheated"—won't allow even one stroke if one switch is tied down, jumpered or short-circuited.

Let us send you complete information on MICRO SWITCH Trip Control and the name of the Distributor nearest you.

MICRO SWITCH

A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY

FREEPORT, ILLINOIS

FOR A SAFER SAFETY SHOE PROGRAM

CALL IN THIS MAN TODAY!

A NEW SERVICE TO SAFETY ENGINEERS

To assure greater success for your safety shoe program, call in Mr. D. J. Wrigglesworth, head of the Industrial Division of Gro-Cord Rubber Company. Mr. Wrigglesworth will work directly with you in selecting the proper safety shoes for maximum safety, comfort and wear under the actual conditions of your industry—thus creating a safer safety shoe which assures greater workmen satisfaction.

YOURS FOR THE ASKING

Mr. Wrigglesworth will be happy to send you the brochure, "Service to Industry," describing the services of the Industrial Division. You'll also receive this free Gro-Cord Sole Selector which instantly tells you which safety sole is best for every department of your plant. Write for yours today.

FOR GREATER CUSTOMER SATISFACTION

MAIL THIS COUPON TODAY

FOR GREATER WORKSHOE SALES

Industrial Division
Gro-Cord Rubber Co.
816 North Jackson St.
Lima, Ohio
Gentlemen:
Please send me the brochure, "Service to Industry," and the Gro-Cord Sole Selector.
Name_____
Company_____
Street_____
City_____ Zone_____ State_____

Four Honored by New York University

A GOVERNMENT OFFICIAL and three executives of insurance companies have received citations from New York University's Center for Safety Education for "important contributions" to the Center's armed forces accident prevention program.

At a luncheon honoring the 107th graduating class of the NYU safety course for civilian and military personnel on May 27, Dr. Walter A. Cutter, assistant director of the Center, presented the awards to Eliot V. Parker, former safety director, United States Army; Ralph J. Crosby, assistant vice president, Marsh and McLennan, Inc.; John S. Cruickshank, chief engineer, Federal Insurance Company; and John V. Grimaldi, director, accident prevention department, Associated Casualty and Surety Companies.

Mr. Parker, who is now director of safety standards for the Bureau of Labor Standards of the Department of Labor, has been associated with the armed forces accident program at NYU since its inception in 1942. The three other award recipients are members of the program's faculty.

Thirty-three students received certificates for completing the three-week, 100-hour course. Members of the 107th class came from many parts of the United States and from the Far East, Europe, and Puerto Rico. To date, some 4,000 persons have completed the NYU course.

Other officials who attended the luncheon were Brig. Gen. Joseph B. Crawford, deputy assistant chief of staff, G1, for military personnel management; Raymond F. Claw, acting United States Army safety director; and Don Buck, safety director, Office of the Chief of Transportation, United States Army.

Give some women enough rope and they'll rig up an extra clothesline in the bathroom.

Some people seem to think they are big shots because they are always exploding.

the oil resistant sole
with the dress shoe look

SPECIALLY DESIGNED FOR SUPERVISORY PERSONNEL

NEO NUCLEAR®

Here at last . . . an oil resistant sole that has been specially developed for "dress type" industrial footwear. Its neat, trim appearance conforms to the modern concept in safety shoe styling yet has all the desirable features to assure long wear. Neo-Nuclear is resistant to oils, heat, acids and caustics . . . and is waterproof and non-marking. Try Neo-Nuclear on your next pair of "dress type" safety shoes . . . we are certain you will be well pleased with the difference they make in looks, in comfort, and in long wear.

NEAT • TRIM
LONG WEARING • HIGHLY OIL RESISTANT
NON-MARKING • FLEXIBLE

NEO-CREPE

NEO-CORK

NEO-SUPREME

NEO-COMP

NEO-CORD

"Sell 'em the shoe with the Sole for the job"

Gro-Cord offers the only complete line of industrial workshoe soles that enable you to assure workmen of greater satisfaction through comfort—safety and longer wear, regardless of job conditions. Get acquainted with the complete line of Gro-Cord soles and heels, today!

GRO-CORD RUBBER CO.

Canadian Plant
GRO-CORD RUBBER CO. of CANADA LTD.
Tillsonburg, Ontario

For a More Successful Poster Program

POSTER program aids miniatured on this and the following pages are NEW — shown here for the first time. Those illustrated in one color on the following two pages are actually printed in two or more colors.

For maximum variety, refer to the 1955 Directory of Occupational Safety Posters. There you'll find 744 top-notch selections on a great variety of subjects. Additional copies of the directory are 50 cents each—write Membership Service, N.S.C.

JUMBO POSTER for SEPT. 1955

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".

SAFETY BANNER FOR SEPTEMBER, 1955

Here is the attention-getting, monthly cloth banner. Available in two types—indoor and outdoor—both are identical in size (10 feet long by 40 inches high), have the same general message and multi-colored design. Indoor type is of sturdy drill with grommets for easy hanging, while the outdoor banner is of extra heavy drill, with wind vents, and has strong stitched-in rope for durability.

NATIONAL SAFETY COUNCIL

0385-A 8½x11½

This new four color poster is illustrative of the 72 four color posters shown in the 1955 Poster Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors

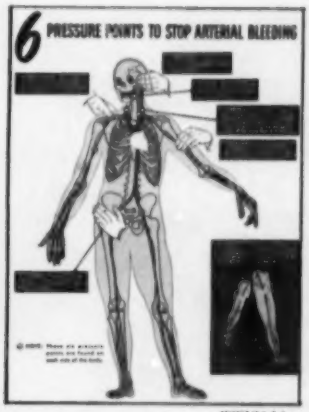
(Available only in sizes indicated)

NATIONAL SAFETY COUNCIL

0536-C **25x38**

NATIONAL SAFETY COUNCIL

0399-A **8½x11½**



NATIONAL SAFETY COUNCIL

0492-B **17x23**

NATIONAL SAFETY COUNCIL

0521-B **17x23**

NATIONAL SAFETY COUNCIL

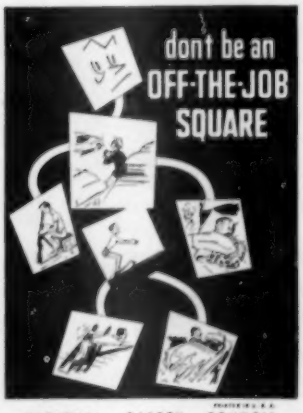
0460-A **8½x11½**

NATIONAL SAFETY COUNCIL

0394-B **17x23**

NATIONAL SAFETY COUNCIL

0519-A **8½x11½**



NATIONAL SAFETY COUNCIL

0494-B **17x23**

NATIONAL SAFETY COUNCIL

0491-A **8½x11½**

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Posters below are printed in two or more colors

(Available only in sizes indicated)

NATIONAL SAFETY COUNCIL

0530-A 8½x11½

NATIONAL SAFETY COUNCIL

0499-A 8½x11½

NATIONAL SAFETY COUNCIL

0359-A 8½x11½

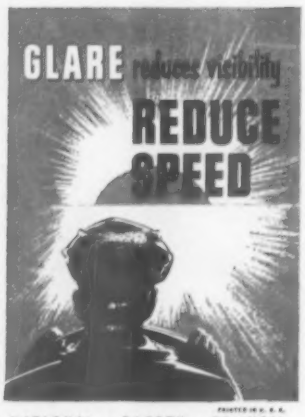
NATIONAL SAFETY COUNCIL

T-0469-B 17x23

NATIONAL SAFETY COUNCIL

T-0471-C 25x38

T-0470-A 8½x11½



NATIONAL SAFETY COUNCIL

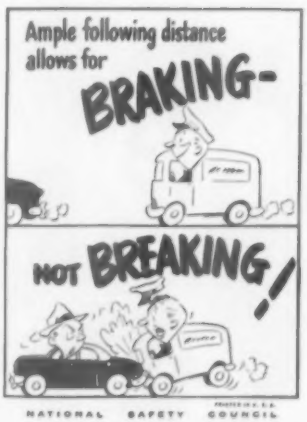
V-0525-B 17x23

NATIONAL SAFETY COUNCIL

V-0522-A 8½x11½

NATIONAL SAFETY COUNCIL

V-0523-A 8½x11½



NATIONAL SAFETY COUNCIL

V-0524-A 8½x11½

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

The Alcoholic

—*From page 23*

centered in the medical department in close liaison with industrial relations.

Since inaugurating this plan with several companies in Chicago, Portal House has had better than average success. Eighty-seven per cent of all cases remaining in treatment for a year or more, are making satisfactory progress toward permanent sobriety. For those in treatment for less than a year 67 per cent show success. Of course, the savings involved in helping successfully even 50 per cent of these men is considerable.

In general, Portal House and the Yale Center of Alcohol Studies agree on these important points in setting up a permanent program for industry:

1. Management acceptance and understanding that the alcoholic employee is a sick person who can be helped and is worth helping. Only when management accepts this concept will the alcoholic be able to come forward and admit his illness without fear of summary disciplinary action.

2. Management must make available through its medical department all possible treatment facilities and disciplines to help the alcoholic employee.

3. An educational program to reduce the "cover up" must be started after treatment of the obvious cases is begun.

4. If the number of those being helped grows, other problem drinkers will come forward to ask for help. There is nothing to insure this program's success like a few recovered patients.

At Portal House, psychotherapy is used in the treatment of alcoholic employees. Skilled counselors and the patient work out together the problems uppermost in the worker's mind. In this way tensions are reduced, the need for drinking frequently abates, and the resultant better adjustment assures improved functioning on the job. Portal House also works with Alcoholics Anonymous through mutual interchange to the benefit of potential patients.

The importance of early detection of the alcoholic employee is explained by Dr. Charles Franco of Consolidated Edison Company of New York, one of the pioneers in this field.

He says, "Both the medical and the administrative approach are designed for the early recognition of problem drinkers. Usually the most advanced cases are recognized first; certainly this was our experience at Consolidated Edison. We realize that earlier recognition of problem drinkers is needed to achieve the best results in treatment."

Dr. Franco emphasizes the value of education in aiding early detection and points out that this phase of education should be presented in the first or second year of a company's program. Slowly but surely, other firms are coming around to this point of view.

In spite of the fact that the program described here has been reasonably successful, not only in Chicago but in other areas where it has been carried out on an individual basis, the problem of proving its worth to dubious industrialists continues. The clinching argument for doing something constructive about alcoholic employees lies in fewer accidents, less absenteeism, and better wages for the worker and in increased production and fewer disciplinary problems for management.

Once the problem drinker can come forward without fear and say, "I am a problem drinker; I need help," a program is on the road to success. Recognition by management that this man represents a dividend on the production line, an accident avoided, and an investment recovered clearly must pay off.

The reason a woman is often called an angel by her husband is that she's always up in the air, always harping on something and never has an earthly thing to wear.

Nothing is ever lost by politeness—except your seat on a bus.

Morale is what keeps you going after common sense tells you it's impossible.

★ Automatic safety control locks truck when operator touches first step.

★ Provides waist high guard rail protection at all heights—on **4** sides—frees both hands.

★ SAFE-LAD rolls to job easily—on regular elevators—through standard doors. Base tray carries all supplies.

★ Stability tests exceed every requirement suggested for ladders by National Safety Council.

For complete specifications, write—

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COMING EVENTS

In the Field of Safety

Sept. 13-15, Cleveland, Ohio
Seventeenth Annual Ohio State Safety Conference and Exhibit (Hotel Carter). Michael L. Stefani, general manager, Cleveland Safety Council, 2073 East 9th Street, Cleveland 15, Ohio.

Sept. 15-16, Harrisburg, Pa.
Pennsylvania Department of Labor and Industry Annual Industrial Safety Conference (No exhibits). John R. Torquato, secretary, Dept. of Labor and Industry, Harrisburg, Pa.

Sept. 15-16, York Harbor, Me.
Twenty-eighth Annual Maine State Safety Conference (Marshall House). Arthur F. Minchin, secretary, Department of Labor and Industry, State House, Augusta, Me.

Oct. 17-21, Chicago
Forty-third National Safety Congress and Exposition (Conrad Hilton Hotel). R. L. Forney, secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Nov. 3-4, Charleston, S. C.
Eighteenth Annual South Carolina Accident Prevention Conference (Francis Marion Hotel). J. Donald Watson, Jr., secretary-treasurer, P.O. Box 539, Columbia, S. C.

His "Office" Is Out in the Plant

THE MOST UNUSED piece of equipment at the Ford Division assembly plant in Chicago is the desk marked Frank Sichman, safety engineer.

The reason for this, of course, is that Sichman spends practically no time at his desk. His "office" is the bustling assembly plant on Chicago's south side.

Following Sichman on his rounds takes a person from roof to basement and yard and into every department of the plant—along all the assembly and sub-assembly lines, through the office spaces, loading and unloading docks, and into the many areas set up to handle the complex job of manufacturing automobiles.

Occasionally he stops and talks to a foreman away from his men. At other times, Sichman makes mental notes of situations that can be improved safety-wise.

On his rounds, he also makes periodic tests of hoists, lifts, limit switches, conveyors and other pieces of equipment that could cause accidents if they worked improperly.

His job includes approving for safety all equipment brought into the plant, which can number hundreds of items at model change-over time. In some cases, Sichman modifies the design of equipment so it will be safe to operate.

But most of his work—and the secret of helping the plant become a perennial National Safety Council award winner—is to get his message across on a man-to-man basis.

"My big job," he said once, "is to make every foreman a safety engineer."

Sichman tries to guide his workers in safety matters in the plant as he guides his family at home.

To do this, Sichman never destroys a foreman's authority by dealing directly with a man he sees violating a safety rule.

"I found out early in my job that if I by-passed the foreman I'd get the opposite result from what I wanted." he said. "The men would lose faith in the foreman, and he'd resent being elbowed aside."

Sichman has been on the job, formally, since 1948 when he was appointed safety engineer, but informally since 1929 when he began work for Ford Motor Company in the plant protection department in Chicago.

The usual tools of the safety engineer—bulletins, posters, use of colors to mark off unsafe areas and warn workers—were used. But Sichman went several steps further in his campaign to reduce accidents.

Using information acquired in a safety course at the Illinois Institute of Technology, Sichman helped plan installation of the latest safety equipment.

Then, with mechanical problems on their way toward solution, he tackled the far more difficult human problem—through the foreman.

At first, according to Sichman, foremen were so intent on production that they had little time for safety-mindedness.

However, their thinking changed as a result of regular safety meetings and conferences. Foremen see safety films, hear the latest safety procedures and bring up their own ideas.

Self interest is nearly always the appeal Sichman uses.

"I never tell a man he has to do something," he said. "I try to get the man to work with me by selling him on safety and making him realize how important it is to him and his loved ones."

This personal approach has paid off handsomely for the Chicago plant. Six plaques set proudly at the entrance to the plant tell the story. The plaques represent safety awards given by the NSC. One, awarded last year, honored the plant for its third consecutive year of reducing both the number and severity of accidents among its more than two thousand employees.

Frank Sichman (left) points out safety features of a limit switch he helped develop on a sub-assembly line. The previous switch was dangerous because a man's foot could be caught between it and a car moving on the line. With Mr. Sichman is William T. Sparks, a supervisor.

WHAT HAPPENS NEXT?

If management has been wise, a fire tragedy will be stopped before it starts...if not, in 20 minutes extensive destruction and total loss could readily be the result.

First-rate fire protection is essential to the continued success of any business. With C-O-TWO Smoke or Heat Fire Detecting Systems, plus C-O-TWO High Pressure or Low Pressure Carbon Dioxide Type Fire Extinguishing Systems, as well as PYRENE Air Foam Type Fire Extinguishing Systems for specific outdoor locations, your plant can have fast, positive round-the-clock fire watchman service simultaneously at each fire hazard point . . . a fire tragedy is stopped before it starts.

Furthermore, there is a personal sense of responsibility inherent with PYRENE—C-O-TWO Fire Protection Engineers that assures you of fully adequate firesafety . . . a definite plus in your behalf. Whether it's fire detecting or fire extinguishing . . . portables or built-in systems . . . PYRENE—C-O-TWO means top quality backed by experienced engineering that results in operating superiority for you at all times.

Act now . . . don't take unnecessary chances with your investment any longer . . . the extensive experience of PYRENE—C-O-TWO over the years is at your disposal without obligation. Remember . . . a plant-wide fire protection survey skillfully executed today could be the means for greater profits tomorrow.

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Wears like iron — takes endless rubbing, scraping, snagging, and still gives full protection.
100% Waterproof — made with top quality base fabric saturation-coated first and then coated with 6 coats of Neoprene Latex.
Positively will not blister, crack or peel. Its longer lasting quality means greater economy.
Also: Three-quarter and long coats, aprons, coveralls and many other styles. All clothing made in black or yellow.

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Cambridge, Massachusetts

Expanded Field Service Announced at NSC Conference

Standing (l. to r.), Harold Kent, James Williams, James Civils, John Hall, Harry Porter, Russell Brown, Robert Schmal, Alton Bundeson. Seated (l. to r.), Ralph Robinson, Don Hill, Ed Smith, Paul Hill, George Grotz, Earl Campbell, Noble Dutton.

EXPANDED FIELD SERVICE with an increased staff has been announced by Paul F. Hill, manager of the National Safety Council's Field Service Department.

The expansion will enable the department to provide more assistance to state and local officials, Council members, safety organizations at all levels, and the many important cooperating groups throughout the country.

The new plans, as outlined at a special staff conference in May, call for drastic changes in previous policies and in the field organizational blueprint. Each field representative will be in charge of NSC activities in certain states assigned to him. The Regional Offices are being changed to conform to the new pattern so that the Eastern and Western Regional headquarters will now be known as the New York and San Francisco offices.

The new format is described as an urgent action program in which carefully trained field representatives will develop and maintain official and lay contacts in their assigned states and cities. Closer and more effective liaison with public officials, Council chapters, and affiliated safety councils will be an important objective.

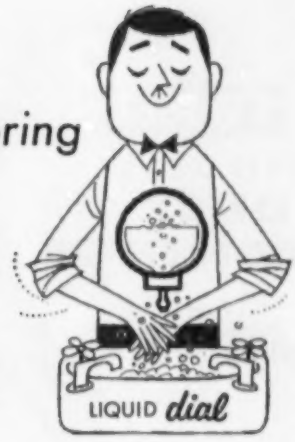
Strong emphasis will be given to the Annual Inventory of Traffic Safety Activities. Certain sections will be strengthened and it is hoped to enlist 100 per cent participation among eligible cities and towns. More time and attention will be given to the presentation of the all-important Analysis to states and cities. A demonstration of a proper presentation was a highlight of the conference.

As a part of the efforts to put the streamlined program in action at the earliest possible moment, an intensive two-week training course was conducted at Chicago headquarters May 16-27. While the instructional series was planned primarily to acquaint the new members of the field staff with every phase of the Council's work, accomplishments, and plans, all department directors and several division heads attended and participated.

Training sessions centered on essential elements of comprehensive safety programs for states and communities. The Council's

—*To page 99*

Armour's Hexachlorophene Soaps bring you the easiest, thriftiest way to protect employees from contact dermatitis!



Liquid Dial! Top germicidal soap in factory and office—so effective surgeons use it!

Bar Dial! Gives 'round the clock protection to millions—at home and at work!

Formula #99—Germicidal soaps with scrubbers added—best for heavy dirt and grease!

Skin infections and dermatitis will steal more than 100 million dollars from industry this year. Don't let them rob employee health, time and morale—or company profits—*just replace the ordinary soap in your washrooms with one of these Armour soaps containing Hexachlorophene.*

Regular washing with these Armour soaps destroys up to 95% of the skin bacteria that spread contact dermatitis and cause secondary infections. And they're all mild, rich-lathering soaps—effective in hot or cold, soft or hard water.

There's no need to buy expensive new soap equipment either! Armour Hexachlorophene protection comes in liquid, bar or powdered form. If you desire a scrubber added, try Formula #99, a germicidal powdered hand soap with either mild vegetable or soluble Borax scrubber added. Put thrifty Hexachlorophene protection to work for your employees now—send the coupon for free samples today!

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Report on Study of Plastic Eye Protectors

Radiant energy and flying particles which may blind or impair the eyesight have led engineers and scientists to study available materials for conservation of eyesight.

The increased use of plastics as eye protectors has raised a number of questions regarding their adequacy. These questions have been answered in a report called *The Spectral Transmissive Properties of Plastics for Use in Eye Protection,* prepared by a committee of experts working under the procedures of the American Standards Association.

The Z2 report, as it is called, covers currently available types of plastics suitable for use in protecting eyes. This includes protectors such as lenses, head and face shields, and goggles.

Plastics were studied for their ability to protect the eyes from the absorption of ultraviolet, luminous, and infrared rays from industrial equipment and from the sun.

Especially in industry, the elimination of harmful ultraviolet rays must be given first attention, the paper warned, as these rays strike without any of the danger signs. Only after the damage has been done do the effects appear in the form of conjunctival irritation, "sand in the eyes." Therefore the report covers in detail the requirements for plastics to be used in goggles and filter lenses.

Very few plastic materials are suitable for use in eye-protective lens or shields, says the report, as most materials are either opaque or translucent to the visible light rays. Only those that are basically crystal clear and may be given appropriate color through the use of suitable dyes and dyeing processes can be considered useful for lenses, and then only if they have suitable chemical and physical properties, such as a large degree of chemical inertness and physical stability. They must not, for example, irritate the skin, have offensive odors or be subject to deterioration by perspiration or other common chemicals with which they are likely to come into contact. Neither can they be soft or brittle or too easily scratched or broken.

Data on the spectral transmittances of plastics are presented in two sets of graphs, consisting of 106 illustrations.

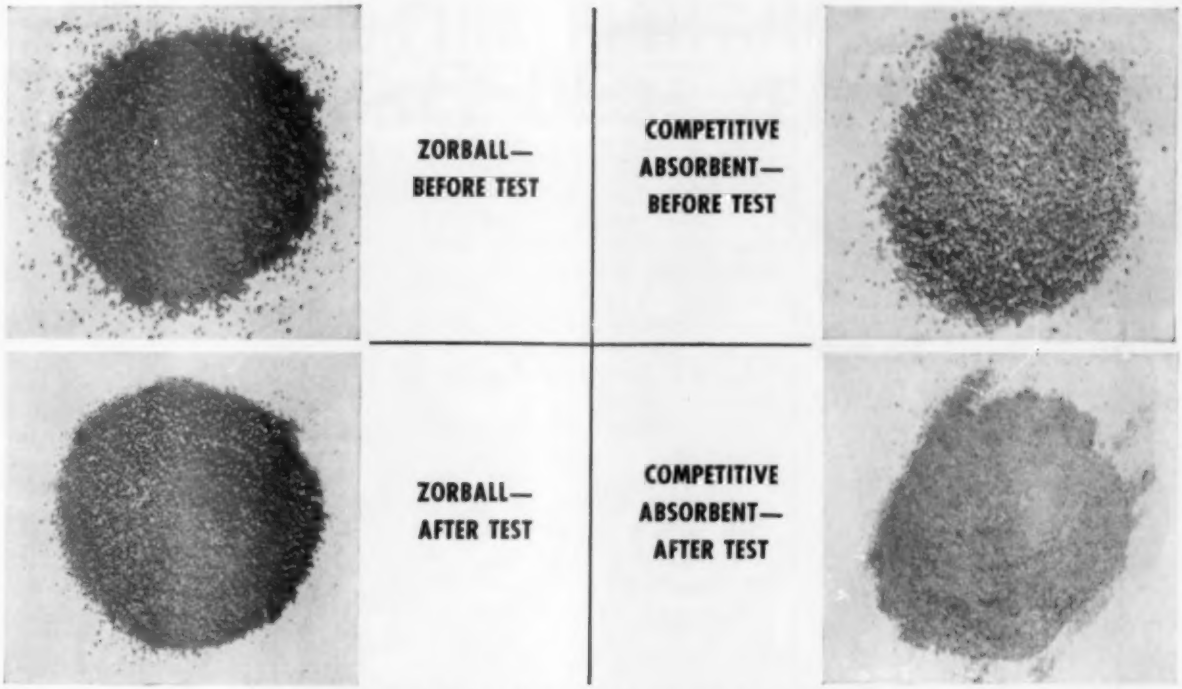
The first set of graphs gives the spectral transmittances for representative samples in the ultraviolet, visible and near infrared regions of the spectrum, while the second set deals only with the infrared regions.

In general, for the various plastic materials covered in this report, the particular dye used and the thickness of the material determine for the greater part the transmissive properties in the ultraviolet and visible spectral regions. In the infrared, however, the dye has little effect on the transmissive properties, therefore, the resulting transmission curve is primarily a function of the thickness or molecular structure of the plastic material itself.

The transmission data are given for the different materials in various thicknesses and colors representative of those commercially available and presently employed in industry. Therefore the illustrations should be considered as representative of plastic types.

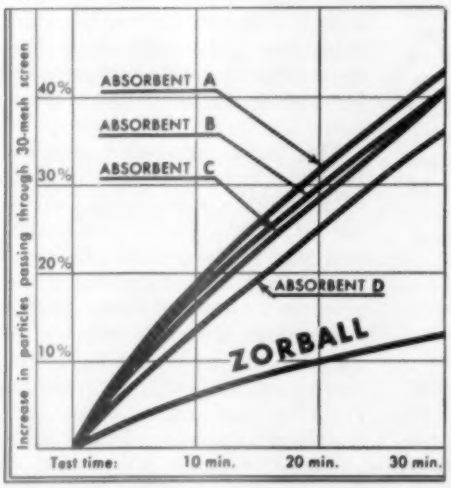
This report was prepared by the Subcommittee on Transmissive Properties of Plastics and approved by the Committee on Eye Protection of the Sectional Committee on Heads, Eyes and Respiratory Organs, Z2, which operates under the procedures of the American Standards Association. This Sectional Committee is sponsored by the U. S. Department of Commerce, National Bureau of Standards; the U. S. Bureau of Mines and the U. S. Navy Department.

The 48-page document may be obtained from the American Standards Association, 70 East 45 Street, New York 17, at $1.50 per copy.



Laboratory abrasion and crush test made on ZORBALL and competitive floor absorbent. *Top:* Both look very much alike when new. *Bottom:* But after 30-minute test, see the difference! ZORBALL is still granular, skidproof. Competitive absorbent is a powdered dust!

Crush tests prove Zorball Floor Absorbent resists breakdown longer, keeps floors safer!



Graph of abrasion-crush tests using ZORBALL and four other leading floor absorbents. Curved lines show rate of breakdown, prove ZORBALL stands up best under severe punishment!

Here's dramatic proof that Wyandotte ZORBALL is the safest, lowest use-cost floor absorbent you can buy . . . a laboratory test that duplicates the crushing that absorbents actually receive "on the job."

ZORBALL is safest, because its rugged, *angular* particles resist breakdown. ZORBALL is nonflammable; absorbs oil, grease, water, paint, ink, and chemicals. ZORBALL retains its anti-skid properties under heavy traffic or extremely wet conditions without mudding, caking, or dusting. ZORBALL lasts longer, goes farther, costs less to use!

For free sample and full data, clip and mail coupon. Do it today! *Wyandotte Chemicals Corporation, Wyandotte, Mich. Also Los Nietos, Calif. Offices in principal cities.*

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SELLSTROM WELDING GOGGLES

These are the Sellstrom World Famous Welding Goggles. They achieved world-wide popularity because the abundant ventilation reduces fogging to a vanishing point. They save time and money because the welder is not forced to stop every few minutes to wipe the fog from the lenses. Here are the facts:

1. Each eye cup has six ½" ventilating ducts with an extra ventilating duct on each side—a total of eight ventilating ducts for each eye cup, 16 for each pair of goggles. No other goggles can equal this abundant ventilation.
2. The air ducts are so arranged that it is impossible for a single speck of light to penetrate through the air ducts.
3. The frame is moulded from tough Thermal plastic setting with all edges carefully rounded to assure maximum face comfort.
4. The special inner lens-retaining rings are so firmly fastened that even a cracked lens remains in place.
5. A covered stainless steel nose-bridge chain (50% strength) permits adjusting to 1/1000 inch for perfect fit. Single adjustment one-piece head band.
6. Extremely light weight, including lenses 3½ ounces. Each pair in an individual carton.

If you are not using the popular No. 420 Welding Goggles, we urge you to try them. They will perfectly satisfy the most critical welder. They also satisfy the management because they permit increased welding per man hour.

Order from your dealer or write us direct regarding this extraordinary welding goggle.

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MANUFACTURING COMPANY
Eye and Face Safeguards Designed for Utmost Comfort
222 Hicks Road **Palatine, Illinois**

Heads NFPA

T. SEDDON DUKE was re-elected president of the National Fire Protection Association at the fire safety group's annual meeting in Cincinnati.

Mr. Duke, president of the Star Sprinkler Corp., Philadelphia, first took office as president of the NFPA last year. He has been an active NFPA member for over 25 years and has served on the board of directors for the past eleven years and as vice president for a four year period.

Other officers also re-elected for another year were: 1st vice president, John A. Neale, chief engineer, National Board of Fire Underwriters, New York; 2nd vice president, Chief Henry G. Thomas, Hartford (Conn.) Fire Department; secretary-treasurer, Hovey T. Freeman, president, Manufacturers Mutual Fire Insurance Co., Providence; chairman, NFPA board of directors, Richard E. Vernor, manager, fire prevention department, Western Actuarial Bureau, Chicago.

A new director, Malcolm S. Blake, assistant manager, Insurance Department, Bethlehem Steel Company, was elected to serve a three year term.

Re-elected to the board also for three year periods were: Warren J. Baker, manager, Technical Department, Insurance Company of North America; E. Kenneth Clark, vice president, Johns-Manville Corp., New York; Elmer F. Reske, manager, Cook County Inspection Bureau, Chicago; and Frank D. Ross, general manager, Factory Insurance Association, Hartford.

More Automation To Whip Smog

"The systematic and automatic collection of accurate measurements of many significant pollutants should greatly expedite a clear definition of our smog problem," said Dr. Lauren B. Hitchcock in an address before the recent Third National Air Pollution Symposium in Pasadena.

The president of the Air Pollution Foundation emphasized that "automation" is one important prerequisite to the diagnosis of the atmosphere in the Los Angeles Basin which adds up now to the unpleasant words, "smog" and "air contamination."

Basing his conclusions on the four-month 1954 Aerometric Survey, conducted for the County of Los Angeles, Dr. Hitchcock recommended that automatic recording equipment be installed to provide more complete monitoring of the improtant variables of our atmosphere which combine to make smog.

On the basis of last year's survey, he further proposed that a minimum of 14 monitoring stations be established this year and that information from each station be telemetered to a central office, then automatically transferred to punch cards, in the interest of efficiency and economy.

Wire from Washington

—From page 14

The President submitted to the Congress four conventions and eight recommendations adopted over a four-year period by the International Labor Conference in Geneva, Switzerland. Among these was Recommendation 97 concerning the protection of workers' health in places of employment, adopted June 25, 1953, with the United States tri-partite delegation (government-employer-employee) voting unanimously for the recommendation's adoption.

This recommendation suggests laws and regulations for methods of preventing, reducing and eliminating risks to employee health, and sets forth specific provisions concerning safety in places of employment. Among these specific suggestions are ones covering industrial air pollution, industrial noise and vibration, protective clothing, and many other proposals relating to employee health.

The President's submission of this recommendation was "for such consideration as it may wish to give." In some of the other instances, the President specifically recommended against legislation to carry out such other recommendations. The President's submission to the Congress also transmitted copies of letters from

GREATEST FIRE FIGHTING DESIGN ADVANCE IN 25 YEARS!

This Kidde Automatic Pressure-Operated CO_2 Extinguishing System is *brand new from the floor up!*

✓ CHECK THESE 10 FEATURES!

☐ **1.** NO FALLING WEIGHTS – No clumsy mechanical triggering methods. Pneumatic or Electrical Control Heads automatically trigger CO_2 cylinders, assure complete discharge!

☐ **2.** SELF-ENCLOSED PARTS – All moving parts of the new Kidde system are self-enclosed to prevent fouling or accidental operation!

☐ **3.** EASIER INSTALLATION – New racking arrangement is pre-drilled at the factory, eliminates need for special hangers, tools or outside material! Can be either "free standing" or wall mount.

☐ **4.** NO PARTS TO REPLACE – Even after a fire, operating parts of the new Kidde system can be re-set with a screwdriver. No parts need be replaced. Refill cylinders and system is ready for operation!

☐ **5.** SIMPLE, THOROUGH TESTING – By merely disconnecting control heads from cylinders, *all* operating parts (other than actual discharge of CO_2 gas) can be tested *in place!*

☐ **6.** QUICK VISUAL INSPECTION – All primary actuating parts fitted with easy-to-read visual indicator. Shows at a glance if system is "set" or "released."

☐ **7.** MULTIPLE PROTECTION – Automatically-operated Directional Valves let you protect more than one hazard from the same bank of cylinders!

☐ **8.** SIMPLIFIED WEIGHING – New racking arrangements lets you weigh CO_2 cylinders right in place without disconnecting them, providing uninterrupted fire protection even while cylinders are being weighed!

☐ **9.** NO OUTSIDE POWER NEEDED – The new Kidde system is completely self-contained, has rate-of-temperature-rise detectors which give sure protection even in case of outside power failure!

☐ **10.** AUXILIARY EQUIPMENT – Also available for use with the new Kidde system are devices for turning power on or off, for opening or closing doors, windows, dampers, etc.

Fully approved by Underwriters' and Factory Mutual Laboratories. Complete details of this revolutionary new system are contained in Kidde's Pressure-Operated System Booklet. Write for your copy today!

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the Secretary of Labor setting forth the coordinated view of the interested executive departments, which in this instance included the Departments of Commerce, Labor, Interior and Navy and the Civil Service Commission.

This coordinated view noted the existence of legislation already on the Federal statute books, and of Federal agency activity, covering some aspects of the recommendation; the coordinated executive statement does not express any view either for or against the enactment of additional implementing legislation. The Administration has not proposed any such legislation.

Highways. The Senate passed S. 1048 (Gore), as amended, to provide Federal funds for a five-year highway construction program, after rejecting the Administration's bill. The House Committee on Public Works completed its public hearings on these highway bills. Secretary of the Treasury Humphrey, in his testimony before the House committee, cited "improved safety" as one of the benefits of a highway program and said that delay in building better highways "means loss of lives through loss of the safety these better highways would bring."

S. 736, to provide a transcontinental highway, received an unfavorable report and recommendation from the Bureau of the Budget.

Marine Safety. S. 1791, an Administration bill requiring the same lights for sail-machinery boats as for motor boats, was reported favorably with amendments by the Interstate and Foreign Commerce Committee of the Senate.

Fire. S. 1006, authorizing reciprocal fire agreements between government agencies and public and private agencies, was signed into law by the President, and became Public Law 46.

H. R. 6435 would establish a National Fire Research Commission for a three-year period, whose Executive Committee is to be appointed by the President and whose other members are to be appointed by the Executive Committee, all members to serve on a voluntary basis. Its duties are to conduct a complete study of the prevention and suppression of disastrous fires, correlate and make public existing information on the technology of fire prevention and fire suppression, enlist the cooperation of all interested public and private agencies and industries, and coordinate existing programs. An annual written report to the President is required, as is a final report, which may include recommendations.

Air Safety. The Senate Committee on Interstate and Foreign Commerce submitted an extensive report dealing with air navigation aids and systems and recommended that a single system of air navigation aids and traffic controls be maintained. S. Conc. Res. 35 (Goldwater) requests the President to review this situation and report to the Congress, if necessary, a plan reorganizing the various government agencies which have differing views on this question, in order to establish a single common system of air navigation.

H. Conc. Res. 129 and 131 would establish a joint congressional commission to study aspects of the common system of air navigation, a subject on which the Senate has already passed S. Conc. Res. 16.

The House Appropriations Committee recommended, and the House approved, an increase of $13½ million, over the previous $5 million, for the establishment of air navigation facilities.

Triple strand rope of polyethylene plastic; two strands of yellow, one of black. Attractive and high visibility. Immediately identifies a restricted area in that it carries out the standard CAUTION colors.

TENSILE STRENGTH OVER 400 POUNDS
NO SAG OR STRETCH

Has high di-electric properties. Not affected by oil. Will not readily absorb dirt. May be easily cleaned.

WRITE FOR BULLETIN NO. 93

IPCO Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY
2850 N. Fourth Street • Philadelphia 33, Pa.

Civil Defense

—From page 25

vanced medical training at Reading's St. Joseph's Hospital under the direction of some of the city's leading physicians.

These courses, along with a heavy program of instruction in rescue work and coordination with the plant's guard force and the company's and Reading's auxiliary police organizations, form the basis for establishing the

greatest possible protection of Parish personnel in case of an attack against the city.

In the field of protection of facilities, the Parish Division's CD program leans heavily on training in fire fighting. Volunteer fire departments in the Reading area have provided 50 per cent of the fire brigade at the Parish Plant. These experienced volunteer fire-fighters not only lend their knowledge to the protection of the plant but also assist in the instruction of brigade members with no previous fire fighting experience.

The Parish CD program is now administered by a committee of both management and union representatives. The CD force is broken down into four units, each of which has a leader, and an overall chairman. These unit leaders make up the committee which governs the program on a plant-wide basis.

Membership in the Division's CD program currently is:

Medical Corps	27
Rescue Corps	9
Fire Brigade	163
Auxiliary Police	11

All of the above are production workers whose normal work stations spread throughout the plant. In addition, about 35 foremen and other supervisory personnel participate actively in the program in all phases of its makeup.

The Parish activity utilizes both theory and practice in a program to keep the CD corps at a high state of efficiency and to acquaint non-member workers with their responsibilities, should an attack occur.

Practice covering the protection of personnel involves actual plant shut-downs from time to time. During these exercises, workers go to previously assigned air raid shelters throughout the plant. The inplant exercises are coordinated with workers' families, who take proper precautionary steps at home during the period of the practice alert at the factory.

Plant protection practice consists of frequent exercises in rescue work, firefighting, use of auxiliary police in the handling of traffic and people in the plant area, coordination with the plant's

OCM can be used on almost any size engine. Requires little or no maintenance. Catalytic units last up to 2000-2500 hours — can then be easily and economically replaced. Non-leaded gasoline must be used with the OCM.
Photo courtesy Downingtown Paper Box Co.

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—Also Eliminates Hydrocarbons—

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The OCM Catalytic Exhaust is made to replace standard engine mufflers. It's now available as optional factory-installed equipment from leading manufacturers, such as Buda, Clark, Yale & Towne, and Lincoln-Schlueter. Or it can be easily installed on present equipment by your own mechanics.

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Wherever you operate gasoline- or LP gas-powered engines indoors — even part time — the OCM Catalytic Exhaust means an end to fume-caused headaches, eye irritation, and nausea. It means more efficient use of equipment, plus greater employee productivity and morale. Write now for complete information and the name of your nearest supplier.

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guard force, first aid demonstrations, etc.

Most protection demonstrations are held once a month, almost always on Sundays—on the men's own time. Firefighting demonstrations usually involve establishing a theoretical fire in an area where one might be expected to occur—in the paint shops, on the paint lines, in paint booths, and other areas where flammable liquids are either stored or used.

In one recent demonstration, a theoretical fire in a storage area was extinguished in 7½ minutes after the alarm was sounded. In this time, members of the fire brigade assigned to the exercise wheeled five 50-gallon extinguishers into the area from various points in the plant, and laid seven lines from fire hydrants operating off the sprinkler system as well as one 350-foot, 2½ inch line from a main hydrant to the fire.

All of this was carried out with the aid of only portable lights. Men were required to don rescue suits before entering the fire area, and to have available on the scene all necessary rescue equipment in addition to the extinguishers, hose lines, and the like.

They were aided greatly in accomplishing this degree of speed by special mobile fire-fighting units, which were designed and constructed in the plant. These compact units are mounted on wheels, but design features are such they can also be transported throughout the various plant units on fork lift trucks, conditions permitting. The mobile units contain every piece of equipment necessary to fight any fire that might occur in the facility.

On May 18, the Parish plant, CD unit and personnel served as the focal point for a disaster training session conducted in cooperation with State and Federal defense officials.

Dramatic demonstrations of various types of disasters and what industries must do to cope with them were conducted.

The program included an air raid drill at the plant with employees seeking their designated shelter areas and a demonstration of a disaster with simulated casualties being evacuated by rescue crews. The fire brigade, first aid, and disaster police also aided.

Main objective of the activity was to demonstrate how simply and inexpensively lives and property can be saved in the event of a disaster.

In a letter to Parish Division officials, Edwin H. Feather, training director of the State Council of Civil Defense, Commonwealth of Pennsylvania, commented:

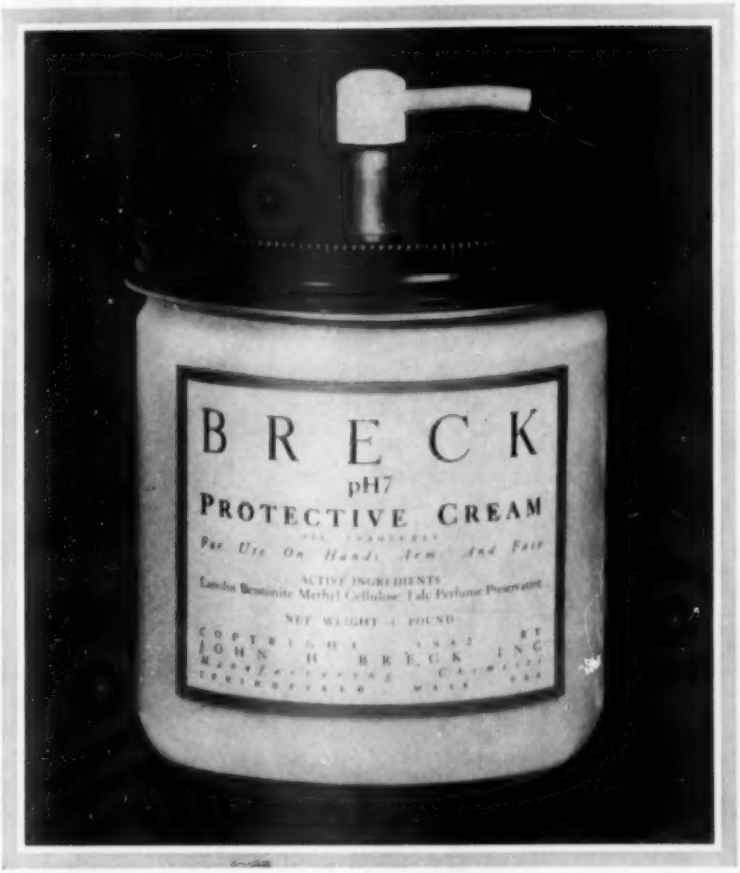
"... You may be very proud of your emergency organization; they conducted a very superior demonstration. I wish I could say that more firms in Pennsylvania were as far advanced in this phase as Parish Pressed Steel. The demonstration highlighted the whole day's work and made everything very real to the representatives from other industries."

Other features of the Parish Division's CD program include the attendance of union and company chairmen at various defense seminars held in eastern Pennsylvania, attendance of participants at Berks County and State Fire Schools, and monthly showings of movies supplied by fire underwriters and Civil Defense National Headquarters.

H. B. Bartlett, manager of the Parish Pressed Steel Division, says that the basic, underlying requirement for an industrial CD program as comprehensive and efficient as this is a thorough mutual understanding between management and the plant union. A high degree of give and take is vitally necessary, he points out, and there is no substitute for a complete understanding of objectives as well as benefits.

Company and union officials also point out that continuous pressure must be maintained behind the program to keep it sufficiently live and dynamic to sustain the interest of participants and to gain and maintain for it the respect and cooperation it must have from the non-participants it is designed essentially to protect.

To this end, at Parish, there is no letup in demonstrations and practice alerts, in first aid, rescue work, fire-fighting, and other necessary elements of the active program.



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WHAT'S NEW
IN NATIONAL SAFETY COUNCIL SERVICES

Accident Preventers

Ever since the publication of the first five *Accident Preventers* last year, there has been a real demand for an expansion of the series to cover more topics.

These one-fold employee training leaflets packed with sound tips on how to stay safe have filled a need for the safety man who must get his message across in a fast manner.

Five new *Preventers* have been added bringing the total to 10. Here are the new ones:

Receiving & Shipping (102)—Covers good housekeeping, lifting, proper stacking, handling of waste, and the hazards of crating and uncrating.

Smoking (202)—Points out where to smoke, the right and wrong way of disposing of cigarette butts, and some rules for smoking when driving.

Eye Protection (302)—Illustrates proper type of eye protection for grinding, chemical splash, hot metal splatter, welding, etc. Shows proper care of goggles.

Skin Care (402)—Covers dermatitis problems. Shows proper way of scrubbing up after job, shows how oily, greasy clothes can cause boils, rashes and other eruptions. Illustrates protective measures.

Electricity (502)—Illustrates proper way of pulling fuses, grounding portable tools, etc. Shows hazards of improper wiring and overloading of circuits.

The *Accident Preventers* can be used in many ways. They may be distributed at safety meetings or passed out by foremen. They may be enclosed in pay envelopes or made available at the time clock.

Safety Parade Manual

Here's an attractive booklet that gives the ABC's of planning and conducting a safety parade. The *Safety Parade Manual* begins with a list of pros and cons on safety parades and then goes into all the preliminary planning that is necessary for a successful parade.

Topics covered are parade route and organization, parade order and formation, publicity and promotion, and decorative floats.

The manual was designed to serve as a workbook. Material is presented in outline form so it can be easily followed step-by-step. Ample margins have been provided for local notes. Float idea sketches given at the back of the manual may be clipped for use by sponsors as a basis for their effort.

Operation Safety

Haste makes waste, as every plant manager knows. And it also causes accidents. The additional time it takes to do a job safely and well pays off in better workmanship and elimination of time-lost accidents.

But how to keep reminding

employees of this fact is something of a problem. One way to do it is by way of the new Operation Safety sticker, "Take Time to Be Safe." This sticker, the second in the Operation Safety series, has the words, "Take Time To Be Safe," printed in bold fluorescent red letters on a blue background. The stickers may be obtained with company imprint in green on the right hand side or with the green cross emblem and the National Safety Council logo.

"Stay Alert, Stay Alive," the first sticker in the Operation Safety series, did a fine job for industrial firms. Because of its success, the new sticker is suggested for the same type of use.

The stickers are 4½" x 15", and there's a miniature size that measures 1½" x 3⅜". The miniatures can be used on machines, hard hats, bulletin boards, and company publications. They can be given to employees to use as dash stickers on their own cars. Firms operating fleets can use them as dash stickers on their vehicles.

Prices are the same as the "Stay Alert, Stay Alive" stickers. For complete prices and ordering information, write to Operation Safety, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Look to this page each month for latest news about NSC services. Address requests for additional information, samples or prices to the Membership Department.

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You can travel far in a few minutes—save steps, time and money—and get things settled while they're fresh on your mind.

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To leave your men's hands unguarded is as serious a mistake as turning an alligator loose on your plant floor. Just check the record. Hand injuries are the most frequently reported, and result in the greatest production losses, the highest insurance premiums—costly, no matter how you look at it.

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Industrial Work Gloves

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PLANTS IN PHILADELPHIA, PA., AND WARSAW, IND.

Speed Research in Battle Against Smog

COMPLETING the first full year of an intensive research program that utilized the laboratories and services of some of the nation's top scientists and spanned a continent, the Air Pollution Foundation announces a strengthened and consolidated scientific front in the battle against smog.

Reorganization of forces, it was explained by Dr. W. L. Faith, vice president and chief engineer of the Foundation, is in preparation for even more widespread smog investigations in the months ahead.

The scientist said that the Foundation—an independent, nonprofit, nonpolitical organization—has reduced the number of its active research studies from 46 to 34. In the last year, he said, 31 air pollution projects of varying degrees of importance have been completed, and by the end of 1955 the Foundation will have expended more than $1,250,000 on scientific studies.

Completed projects include the Houdry catalytic converter, which the Foundation found is not yet ready to be recommended as a potential smog eliminator for public adoption; plant damage studies; projects for measuring hydrocarbons and oxidants in the air; studies of refinery emissions, aldehydes, and other gases, and the development of a number of new scientific tools to lick smog.

"Active smog projects currently under way may be divided into three classifications," Dr. Faith declared. "These seek to find the answers to (1) What is smog? (2) What causes smog? and (3) How may smog be eliminated?

"Probably our outstanding accomplishment to date has been the aerometric survey, made in 1954 with funds provided by the Los Angeles Board of Supervisors. We are still working to measure the pollutants, reaction products, and other factors in the atmosphere which, separately or in combination, may be responsible for smog in the Los Angeles basin.

"In this four-month study, conducted at 10 different stations throughout the Los Angeles basin,

we obtained approximately 100,000 different numbers, which were placed on punchcards and currently are being run through business machines at Palo Alto to find what constitutes smog.

"Preliminary results suggest several things. For example, figures indicate that smog formation occurs widely throughout the basin and that the pollutants probably result from widespread human activity. Samples taken in the upper air by a U. S. Navy blimp during the study show that gaseous pollutants are pretty well confined below the temperature inversion that prevents our smog from being dissipated into the desert."

A visibility study also added materially to the Foundation's knowledge of smog. This project is primarily a study of U. S. Weather Bureau data on visibility over the past 20 years. A report to be published about August 15 will indicate, among other data, the number of days in the last two decades when visibility was less than 12 miles, as well as the times when it was less than one mile.

In the "What is smog?" classification, also, is the air tracer study. This study indicates that current methods used by meteorologists in tracking the movement of air throughout the basin must be used with caution, since apparently the methods are not adequate under all conditions.

Among other projects, the Foundation's solar radiation by wavelength study at Washington, D. C. has indicated that the main difference between smoggy and normal air is a higher concentration of nitrogen oxides.

Studies of infrared solar radiation absorption by smog conducted by personnel of the University of Denver showed a higher hydrocarbon content in smoggy air than in normal air. "Along with this," said Dr. Faith, "we've found that we need to develop much sharper tools to measure smog than are presently available.

"Projects to develop and adapt these new tools include a study at UCLA of microwave spectra for identification of smog constituents; use of the ozone measuring

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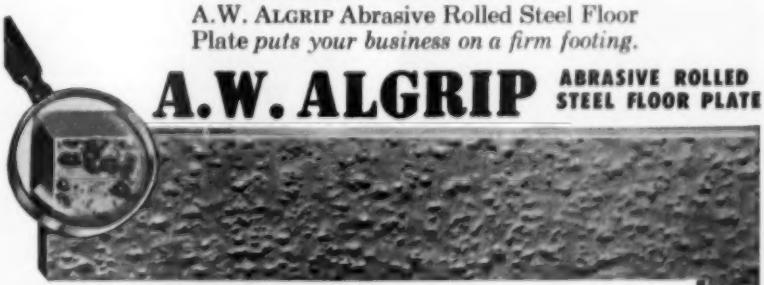

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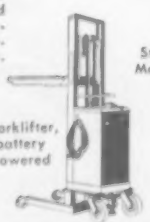

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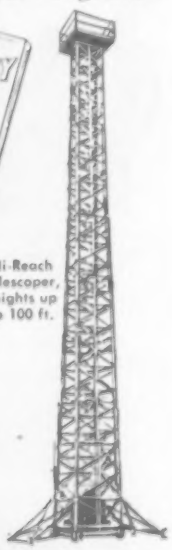

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instruments in North Hollywood; the paramagnetic resonance studies at Stanford, and the particle counter for aerosols at Berkeley.

"Photochemical studies at Armour Research Foundation in Chicago are searching out the answers to just how hydrocarbons and oxides of nitrogen react in the air to form ozone.

"In our investigations of 'What is smog?' we are engaged, too, in a review of a great body of past chemical history in an effort to find leads to the photo-chemical changes that take place in polluted atmospheres. Another important study in this classification is the investigation into carbon isotopes at California Institute of Technology. We think that this study will indicate the relative occurrence of carbonaceous material from petroleum as against carbonaceous material from the burning of trash."

Projects being pursued in the "What causes smog?" classification obviously include those already mentioned in the first classification, and in addition numerous other projects. Among these, the smog forming reactions project at Stanford Research Institute in Pasadena is seeking direct identification of the substances that form smog. Here researchers are irradiating polluted night air under controlled conditions and determining its oxidant content, plant damaging effects, and eye-irritating and visibility reduction properties. When this is determined, hydrocarbons and other materials will be added to this air to ascertain how it is affected.

At Midwest Research Institute in Kansas City, the Foundation is sponsoring a project to determine what portion of automobile exhaust is responsible for smog characteristics and the effect of different engine operating conditions. Also being studied here is the effect of alcohol-gasoline mixtures on auto exhausts.

A project seeking to learn the composition of effluents from backyard incinerators is under way at Columbus, Ohio. This is expected to determine exactly what contaminants enter the Los Angeles air from this source.

Dr. Faith pointed out that it

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is impossible completely to eliminate smog until science ascertains exactly what smog is and what causes it.

"In the interim, our program in this direction has been aimed at elimination of major air pollutants," he said.

"At Southwest Research Institute in San Antonio, for instance, we are studying the economical and technical feasibility of automobile control devices as well as the economic feasibility of other automotive fuels such as liquefied petroleum gas, ethyl alcohol, and white gasoline."

Present Sloan Awards For Traffic Safety

Nine Alfred P. Sloan Radio-TV Awards for outstanding public service in the field of traffic safety were presented May 17 at the annual award dinner in New York.

Winners were:

The NBC Radio Network.

Radio stations WOWL, Florence, Ala.; KOY, Phoenix, Ariz., and WUOT, Knoxville, Tenn., the latter the noncommercial educational station of the University of Tennessee.

Television station WCPO-TV, Cincinnati, Ohio.

Four commercial sponsors—De Soto-Plymouth Dealers of America, Esso Standard Oil Co., Twin City Federal Savings and Loan Assn., Minneapolis, Minn., and Plymouth Dealers of Greater Detroit.

An honorable mention was given the Rural Radio Network, Ithaca, N. Y.

More than 200 business and industry executives, civic leaders and government officials attended the award ceremonies. Alfred P. Sloan, Jr., chairman of the board, General Motors Corp., and president of the Sloan Foundation, sponsor of the awards, presented bronze plaques to the winners. Jackie Gleason, Dorothy Sarnoff and the Teddy and Phyllis Rodriguez dance team were entertainment features.

Now in their seventh year, the Sloan Awards are administered by the National Safety Council. They were established to encourage the broadcasting industry to step up its support of traffic acci-

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dent prevention and to recognize the best annual performances in promoting it.

Judges for the Sloan Awards were Gen. George C. Stewart, general manager, National Safety Council, chairman; Mrs. Stephen J. Nicholas, executive director, General Federation of Women's Clubs; Ralph W. Hardy, vice president, National Association of Radio and Television Broadcasters; Kenneth G. Bartlett, vice president and dean of public relations, Syracuse University; George Jennings, director, division of radio and television, Chicago Board of Education; Charles D. Curtiss, commissioner, U. S. Bureau of Public Roads, and Harold I. Goss, president, American Association of Motor Vehicle Administrators.

In congratulating the award winners, Mr. Sloan praised broadcasting's role in helping the nation last year to achieve the lowest motor vehicle death rate in its history.

Report on Study of Radiation Exposure

A study of long-term exposure to radiation was made possible when an unusual health problem arose recently as the radium therapy clinic in Baltimore prepared to move to new quarters, it was revealed in a recent report presented to the American Industrial Hygiene Association at the Industrial Health Conference in Buffalo.

The report of the Baltimore study was presented by Henry N. Doyle, Chief of the Occupational Health Program, U. S. Public Health Service, and C. E. Couchman, director of industrial hygiene, Baltimore City Health Department, both of whom participated in the research.

The Baltimore Clinic, organized in 1904, indirectly played an important role in the development of atomic energy, as material from it was used in the early work leading to the discovery of the neutron, the report begins. In 1914 the Clinic started a radon emanation and purification plant to prepare radon applicators for therapeutic use. At that time radium hazards were not fully appreciated. One and possibly two radon pumpers died from aplastic anemia, and a radiochemist had a near fatal attack of the same disease.

The Clinic was located in a converted three-story brick building. Connected to the main building was a wooden structure containing laboratories, and an elevated brick vault in the back-garden housed a radon emanation plant. In recent years, two fires gutted the wooden structure, one severely damaging the main building.

A radiation contamination study was made of these premises with instruments sensitive to alpha, beta, and gamma radiation. The survey, according to the report, found alpha emitting materials throughout the Clinic.

In several locations the alpha contamination, resulting from long use, was truly astounding, the report continues. Counts as high as 30 million disintegrations per minute were recorded. Air samples from the capsule preparation room contained approximately seven times the currently recommended maximum permissible concentration for radium and its decay products. Fixtures, floors, and other exposed surfaces were monitored and were found to be contaminated.

In the burned area radium contamination appeared to have been spread by water during the fire fighting and as the result of subsequent traffic. The drains of several sinks, including that in the dining room, contained radioactivity.

To what extent were the employees affected by this contamination? Over the years the Clinic had employed hundreds of persons and at the time of the examination 11 people were working part or full time. Only four of the former employees, however, came to be examined, and six of the presently employed. The report states that six of the 10 examined showed evidence of physical change, some of which could be attributed to radiation.

Among other precautionary measures, the report recommends that the radiation therapy

clinics be designed to provide maximum protection against air and surface radioactive contamination; that fire officials be informed in advance of the location of establishments using radioactive isotopes so that proper fire-fighting techniques can be used when needed. Personnel radiation monitoring should be maintained and evaluated, and whenever excessive exposure is detected, proper medical examination should be performed.

Detective Story

Safety engineering, Adrian Bruinsma speaking. 'Lo, Charlie! How's everything at Greenco—dead, you say? Second Shift again? How—? Oh, I see. Both hands at the wrists and died of shock.

Look, Charlie, that's the fifth amputation in three months! I know, I know! You've checked the machines, the guards, everything. I have, too! But we're both missing something. These things just don't happen. I'm going to talk with Claims. They might have a lead. Call you back tomorrow. So long, pal!

'Lo, Charlie? Bruinsma. Think we've got a lead. I went out with Safrini, our claims man, who knew the people in those cases. Talked with the guys' families. We'd figured it'd be the personal element. Yeah, one thing they all agreed on. Last four-five months the man at the house hadn't been happy about his job.

No, don't know why. But you can give me the names of the foreman and his assistant. No, just want to check them out, too. See you tomorrow.

Hi, Charlie! Think we've got it. Here, look at this confidential report. Funny, though, you should have all this in your personnel file. Look, two years ago his son gets it in Korea. Eight months ago his daughter too, by auto. Five months ago—divorce! He's cracking up! That's the guy who's been slowly killing your best pressmen. The guy who's running your press plant!

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THOMAS J. WATSON, JR. — *Portrait by Fabian Bachrach*

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"I have always been proud of the fact that IBM was one of the first companies to put into effect the Payroll Savings Plan for the purchase of United States Savings Bonds, and I am delighted to see this patriotic endeavor continuing year by year and increasing throughout our organization. Today thousands of IBM employees, through their participation in the Plan, are helping their country and providing for the future of their families and themselves." **THOMAS J. WATSON, JR.,** ***President International Business Machines Corporation***

If employee participation in *your* Payroll Savings Plan is less than 50% . . . or, if *your* employees do not now have the opportunity to build for their future through the systematic purchase of U.S. Savings Bonds . . . a letter to: Savings Bonds Division, U.S. Treasury Department, Washington, D. C., will bring prompt assistance from your State Director. He will be glad to help you put on a person-to-person canvass that will put an application blank in the hands of every employee. This is all you have to do. Your men and women will do the rest, because they will welcome the opportunity to build for personal and national security.

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NATIONAL SAFETY COUNCIL

Sprinklers are No. 1 Fire Defense

"THERE'S NO SUBSTITUTE for sprinklers, and sprinkler heads belong wherever they can save a life."

Assistant Fire Chief Edward N. Montgomery, Boston, paid a compliment to automatic sprinklers at the National Fire Protection Association's 59th annual meeting at Cincinnati.

Chief Montgomery extolled the value of even one or a few sprinkler heads placed at strategic points in a home, tenement, or other building — particularly as life savers.

Expanding use of so-called "pressure-tank" sprinkler systems for life safety in buildings where city water supplies are not available was analyzed by Pickard E. Wagner, New York, of the National Automatic Sprinkler and Fire Control Association.

Pressure tanks may be installed even in a basement; they contain water under air pressure and the air supplies the force for delivering the water after heat unseals a sprinkler head, dousing the fire where it originates. They are not substitutes for a complete sprinkler system with a city water supply or a gravity tank, but pressure tanks should have consideration where it is a question of putting in a limited water supply system or having no automatic fire protection at all.

Such systems would compete economically with fire detection alarm systems and initiate extinguishing action as well as sounding an alarm.

Especially for life saving, but also for property protection, pressure tank sprinkler systems can be recommended for outlying nursing homes, resort hotels, country clubs, camps, dance halls, township schools, college dormitories, canneries, hatcheries, country cotton gins, and grain elevators. Historic buildings and large residences, or smaller ones which may contain works of art, important documents, or similar material, also are logical sites for sprinkler protection. Forest fires might start from fires in unprotected out-of-the way buildings.

Chief Montgomery, discussing partial sprinkler installations wherever adequate pressure can be provided, suggested the tops of stairwells (natural flues for uprush of fire) and points near old chimneys or basement heating plants.

Fire Prevention Bureau specialists or other fire department personnel can point out the critical spots in a home or other buildings where a sprinkler head or two might mean the difference between a minor blaze and a raging fire, Chief Montgomery said.

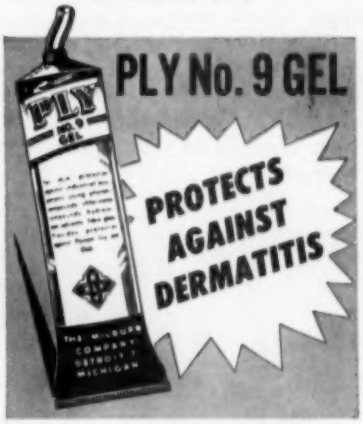
"Of the 58,961 fires in 'sprinklered occupancies' reported to the NFPA in the period 1925-1954, 96.2 per cent were successfully controlled or extinguished by automatic sprinklers," Mr. Wagner said. Of the other 3.8 per cent, more than one-third were due to closed supply valves. It is known, too, that numerous fires extinguished by one or two sprinklers were not even reported to NFPA, he noted. But of the fires reported in all types of sprinklered occupancies:

Over 54 per cent of fires have been controlled by two or less sprinklers; six or fewer sprinklers controlled or extinguished over 76 per cent of all fires, and 10 sprinklers or fewer, almost 84 per cent.

Pressure tank systems should be in selected properties; not, for instance, where there is danger of flash fire or where large quantities of highly combustible material is stored, Mr. Wagner commented. But in most fires in selected properties "the system would extinguish the fire; in practically all cases it would provide a holding operation until a fire department arrived."

The record of one type of small limited water supply system, using a pressure tank as a source of water supply, includes 159 fires, only six with unsatisfactory control, Mr. Wagner said. But 86.2 per cent of these fires were controlled by three or fewer sprinklers. Regular inspection service

IF YOUR EXPOSURE IS HIGHLY IRRITATING SOLVENTS



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With Ply No. 9 Gel the worker no longer need fear the most commonly used acids, resins and solvents. Whatever the hazard, Milburn has developed a specific Ply Cream to combat it.

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Plyglovs can reduce your work glove costs as much as 75% — will outwear up to 10 ordinary pairs. Plastic coated to protect hands from industrial liquids.

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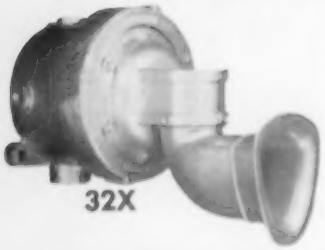
PLY
The Standard of Perfection in Protection

is one of the best safeguards to any type of fire protection.

Chief Montgomery commented that in partial installations, where water pressure is adequate, a good home handyman can install his own sprinkler heads in "hot spots" where danger is acute.

Chief Montgomery, a veteran fire fighter, told newspapermen how the nationwide distribution of flammable Christmas toys had been checked to a final stop last year after one of his scouts, making a regular pre-Christmas survey of the toy shops, especially the cheap hawkers and small stands, saw the flimsy toys and thought they looked suspicious. Tests at headquarters confirmed the high flammability of the toys, and Chief Montgomery enlisted the aid of the NFPA in sounding an alarm nationally. This not only stopped sale of such Christmas toys, but put an early stop to distribution of similarly flammable toys held for the Easter market.

SIGNAL . . . *even* in hazardous locations!



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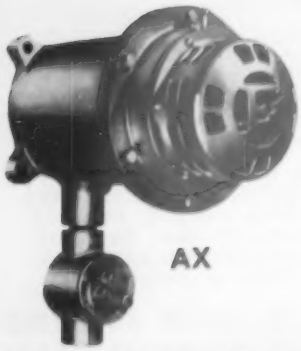

AX

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Hold Conference on Laboratory Hazards

HAZARDS of chemicals and atomic radiation in the laboratory were highlighted during a safety conference May 12 and 13 at the General Electric Research Laboratory, Schenectady, N. Y.

More than 50 safety experts from industry, education, and government attended the meeting, sponsored by the National Safety Council's laboratory subsection. The workshop program, first of its kind, was conducted by Howard H. Fawcett, safety engineer for the GE Research Laboratory and chairman of the NSC laboratory group.

Among the safety measures recommended in dealing with liquid hydrogen were substantial anti-spill systems, adequate ventilation, and elimination of ignition sources. Reactions using gaseous hydrogen require vessels constructed of austenitic steel, and such pressure vessels should be periodically checked by hydraulic tests to avoid the dangers of hydrogen embrittlement, the group was told by GE sicentist H. C. Rogers.

The hazards from radiation associated with radioactive isotopes, high-energy particle accelerators, and atomic piles are a concern to only a few laboratories at present, observed Charles P. Malone, of General Electric, but every plant faces the possibility of being in an area of radioactive fall-out following enemy attack. To provide for such an eventuality, said Mr. Malone, a laboratory should possess appropriate instruments for the measurement of levels of radioactivtiy and some form of shielding. Such provisions would at the same time strengthen the civil defense resources of the plant community.

The field of low-level radiation, which might be encountered in the expected industrial applications of radioactive isotopes, offers many opportunities for safety research, declared Dr. Hendrik M. Rozendaal, manager of biological studies at the Research Laboratory. He told the group that determination of the effects of long-term exposure remain to be in-

vestigated. Use of periodic blood counts and physical examinations, he indicated, may have to be supplemented by other tests to assure that no ill effects are developing.

Earl Wallace, of Eastman Kodak Company, called for a two-way flow of information between laboratory workers and those responsible for safety. Information supplied by the worker can be particularly important, said Mr. Wallace, when dangerous materials are being ordered and stored. In one case it was discovered that many pounds of lithium aluminum hydride as well as sodium were being ordered and kept in the laboratory for long periods, when only gram quantities were needed.

A better interchange of information between the laboratories themselves is needed immediately, the group agreed. As a first step toward more effective pooling of safety information, Mr. Fawcett agreed to serve as a clearing house in the exchange of manuals and other data submitted by those interested in the subject.

The next meeting of the laboratory subsection will be held in October in Chicago, during the National Safety Congress.

Sewage Sterilization By Gamma-Radiation

The deadly radiation from radioactive substances, already serving mankind in industry, agriculture, and medicine, may be put to other beneficial uses according to investigations conducted by the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Va., in conjunction with the Oak Ridge National Laboratory at Oak Ridge, Tennessee.

After six months of research, sanitary engineers have demonstrated that water-borne sewage can be sterilized by gamma-radiation without activating or leaving residual radiation in the treated liquids.

The waste products from atomic power plants offer one possible source of the required radioactive materials. According to Mr. Harry N. Lowe, Chief of the Engineer Laboratories' Sanitary Engineering Branch, the possibility exists that these waste products can be used to sterilize water, sewage and other liquids. Work is continuing to fully exploit other possible benefits.

Besides the possible use of gamma-radiation by the Corps of Engineers for the sterilization of sewage other agencies have found that gamma rays can also be used to sterilize certain drugs and antibiotics which are harmfully affected by heat, to preserve meat and other food stuffs by killing the bacteria that cause spoilage, to irradiate pork and thus inhibit the spread of trichinosis, and to decrease the number of bacteria in swimming pools without using chlorine, etc.

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Maintenance Goes on During Vacation

When the factory shuts down for the annual vacation, there are many opportunities for maintenance projects which are difficult to carry out when the plant is in operation. Here are some suggestions for planning the work, as described by William Schaefer, maintenance foreman for Thomas Industries, Fort Atkinson, Wis., writing in Wisconsin Safety News:

THERE ARE two kinds of priority which must be taken into account when planning vacation work schedules for a maintenance department in a medium size factory:

1. Priority ranking for different mechanical jobs, according to the urgency of these jobs.

2. Priority ranking of vacation schedules according to seniority rights of the men involved.

In order to make a list of urgent maintenance projects, it is necessary to stimulate factory foremen to get their work orders in for desired repairs and changes at least three months before actual plant shutdown.

These orders are sorted out as to which ones are "must," and the most urgent projects are scheduled to be done during the first week of the shutdown.

The kinds of projects which typically must be done during vacation period would include overhauling presses, furnaces, boilers, paint ovens, washers, plating tanks, polishing equipment, sandblast. In other words, any production equipment which represents a bottleneck in continuous processing must be overhauled during the plant shutdown.

On the other hand, production equipment which is comprised of several machines, some of which can run while others are being serviced during the work week, can be serviced at any time during the year.

Of course, much depends on whether production has been running one or two shifts and five days per week or six days. If six days per week, then a vacation period may be the only opportunity to get major projects com-

pleted. Major moving jobs and rearrangements of equipment, naturally, would have to fall within a vacation period.

After repair jobs are sorted and arranged for priority, it is necessary to order replacement parts two or three months ahead of the vacation shutdown in order to have the necessary machine parts when the work gets underway.

In my department, I assign the men who have no vacation coming (because of their short length of service) to take the place of watchmen and firemen. Those of my men who are entitled to two weeks vacation are assigned to do maintenance work during the first week of the plant shutdown, after which these maintenance men take their full two weeks vacation.

Of the men whose length of service only entitled them to one week of paid vacation, I assign one-half of this group to work the first week of the plant shutdown and one-half of the group to work the second week of the plant shutdown, to handle any leftover details of urgent projects or any secondary repair orders on the program.

In our plant, the supervision on urgent jobs during the first week is covered either by my being present, or arranging with the plant engineer for him to be present for the first week.

The plant engineer and the maintenance foreman work closely together in planning for vacation repairs, especially when outside contractors may be involved on major jobs.

Memo to Conscientious Safety Men

"I have been safety engineer for the City of Austin (Texas) for the past nine years," writes Tom Folts, "but in spite of my efforts, accident rates stay high.

"I am now reaching retirement age, and in an effort to close out my career with the knowledge that at last I had reduced our rates to zero, I asked the help of our assistant personnel director, Mr. R. B. Dunbar, Jr. The following is his solution.

"If you think it will be of help

NOW...WHICH *SIZE* FITS YOUR DELIVERY NEEDS?

NEW ANTHONY "LIFT GATE"

For ¾-Ton and Larger Trucks

Model No. 146 handles up to 4000 lbs. on heavy trucks and semi-trailers.

Model No. 145 handles up to 2000 lbs. on 1½-Ton and larger trucks and semi-trailers.

Model No. 130 for Pick-up Trucks with steel express bodies.

This new lower priced Anthony Model No. 144 "LIFT GATE" handles loads up to 1000 lb. (other sizes from 800 to 4000 lbs. are available). Lift Gates in all sizes let one man do the work of three or more when loading or unloading a truck with heavy bulky freight — and in one-third the time. Loading and unloading is done with ease by moving one conveniently located lever to control the powerful hydraulic action of the "LIFT GATE". With the time saved in loading and unloading you can double your deliveries. Damage to merchandise and personnel accidents are greatly reduced. One "extra" delivery each day will pay for your Anthony "LIFT GATE". Write today for complete information.

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No Need to Gamble

when closing latch-type lock hopper bottom car doors.

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eliminates hazards of ruptures, strained backs, smashed fingers. Write today for free folder.

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to other old, gray headed, tired safety engineers, please publish it so they may retire in peace."

* * *

SAFETY PEOPLE are never satisfied—unless there are no accidents. They worry, lose hair, develop ulcers, curse friends, relatives, workers, secretaries, and bartenders. They even forget coffee breaks, unless they can find a way to stop accidents.

From time to time, however, these dispensers of happy sayings (example: Use Your Head, Don't Expose Your Brain) often develop some very constructive methods of preventing human mutilation. These media include safety education, safety devices, safety contests, safety clothes, and on and on, none of which are ironclad accident preventers.

This got us to thinking. Why couldn't someone invent a system whereby practically no accidents could happen and thereby increase the life expectancy of the safety man? Such an innovation would surely benefit society. It might even enable us to publish our finding, and make some money. We got busy!

We analyzed accepted methods. We discussed, deliberated, interviewed and even called in our safety man for consultation. We weighed the facts and finally came up with something—which we immediately accepted as standard operating procedure for our safety department. We think we have something too big not to be shared.

Here are our "Ten Handy Little Ideas for Improving the Accident Record":

1. *Psychology (direct).* Let the injured worker know that management won't tolerate another accident. Forcefulness is the key. For instance, a recommended comment to an injured worker could be, "You dirty little so and so, if this happens again you'll be fired" (you might even kick his broken leg just to show that you mean what you say).

2. *Psychology (indirect).* If you're not the forecful type, simply disregard the once injured worker; don't speak to him, don't give him a raise when due, don't allow him to take his vacation. Or turn in his time for a final paycheck without telling him (to make him more confused, tell him you didn't know he was being fired—at least blame it on someone else).

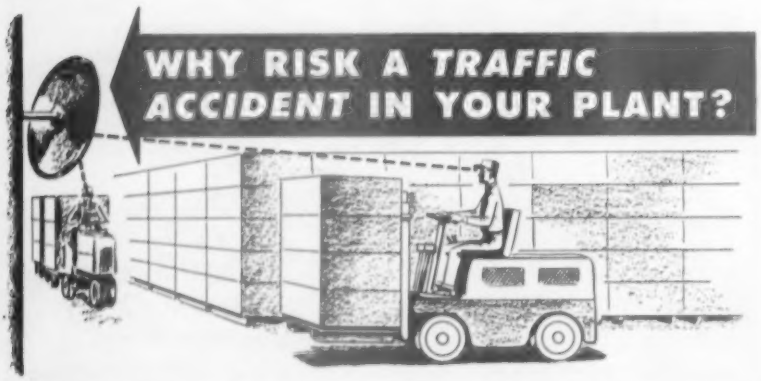
3. *Safety Devices.* Try a more positive way; show the men you really are interested in their welfare. Buy all available safety devices and equipment. You probably won't have time to use them or teach workers how to use them. But the fact that you have them stacked in your storeroom ought to show these guys how really concerned you are of their safety.

4. *Establish Priority.* When an accident report comes across your desk, put it on the bottom of the stack. As it continues to come to the top (if it ever does), simply put it back on the bottom. This way no one knows that the accident occurred (who needs to know, anyway); there'll be no investigation, no reprimand, no accident—with no report!

5. *Thorough Screening.* Count only certain accidents each month: January: heat prostration; February: broken right big toes; March: sprained sacroiliacs; and so on. If you don't think this will give you a good record, try it.

6. *Proper Rehabilitation.* Suppose an accident does happen, even though the chances are 100 to 1 against such a possibility. First thought should be to get the man back to work; stop at nothing to make the man productive again in order to get his mind off his incapacity. Set time limits on lost time e. g. three days for a broken neck; a week or so for a hernia. Fine all persons absent for longer periods. If a person suffers from a serious accident, take work to him. Count a 15-minute interview with the patient as a full day's work for him. Utilize an ambulance to transport people to the job so that they can punch the time clock.

7. *Thorough Reporting System.* Adequate records are essential.



KLEAR-VU SAFETY MIRRORS are the answer to the dangerous blind corner problem in your plant or warehouse. They are also adaptable for outdoor use in your parking lot, loading dock area or other points where traffic converges.

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Style	No.	Dimensions
Circular convex	120	12" diam.
Circular convex	180	18" diam.
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Flat rectangular	918	9" x 18"
Flat rectangular	1640	16" x 24"

Available in either convex or flat glass styles, the mirrors are easily installed and quickly adjustable to any desired angle.

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Write for Bulletin.

Use a special form for every transaction. Try these: (1) Accident Report Form, (2) Near Accident Report Form, (3) No accident Report Form (to be submitted once per month on all employees who didn't have an accident the previous month), (4) Special Accident Report Form for Specific Types of Injuries, (5) Lost Time Accident Report Form, (6) No Lost Time Accident Report Form.

Never approve a new form unless it has at least three pages of questions, 50 per cent of which are ambiguous. Require at least eight copies of every form, and send them to everybody. Keep forms at least five years. Require on the forms the signatures of the chairman of the board, the president, safety man, injured employee, supervisor, department head, chief janitor, eye witnesses, hearsay witnesses, head of the legal department, etc. Disapprove all forms which are in error (typographical, grammatical or otherwise). Above all, make the supervisor responsible for all paperwork (he doesn't have enough to do anyway).

8. *Immediate Reporting Procedure.* No matter how many reports you have, just be certain that all are submitted on time. Twenty minutes ought to be ample time allowance for a supervisor to administer first aid, take statements, get the crew back to work, then complete a short, three page accident form. Simply determine an equitable amount of time for submitting a report then divide by four. Make it plain that a late report is no report, hence no accident (and lower accident rates).

9. *Careful Analysis.* Thoroughly analyze all the reported accidents. Throw out those reports where it can be determined that the injured employee was at fault. Question everything, and when in doubt, don't consider it an accident. After all, are you sure that the man didn't saw through the rung on that "defective" ladder which caused him to break his neck? There are many other ingenious ideas you can think of here.

10. *Safety Instruction.* Follow a more accepted method of accident prevention: safety education. Just make sure that every supervisor knows the nine preceding rules—and that they follow them.

It is easy to see through people who make spectacles of themselves.

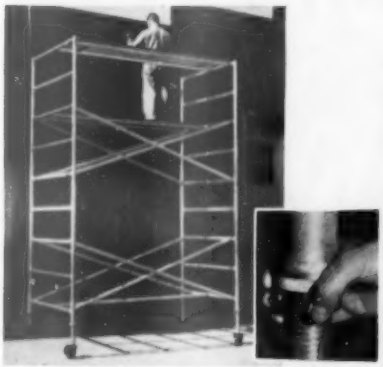
There are better ways of staying young than acting childish.

There would be fewer divorces if the husband tried as hard to keep his wife as he did to get her.

Arab proverb: If you stop every time a dog barks, your road will never end.

Aluminum Scaffolds . . .

by The Patent Scaffolding Co.

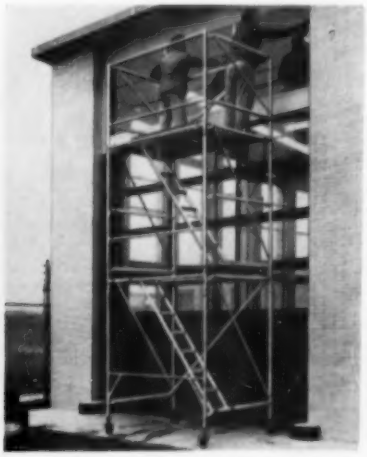


NEW 4'6"-WIDE LADDER SCAFFOLD

This 4'6"-wide aluminum ladder scaffold provides added stability and extra working room for painting, cleaning, relamping and general maintenance jobs. Base section is 6' high. Other heights are achieved by combining other ladder units of 4' and 5'4", and using 24" leg adjustment (Inset). Leg adjustment (on all three Scaffolds) is build in and gives safe, positive height adjustment without lifting scaffold. Two quick turns raise or lower one full inch. Diagonal braces give 6', 8' or 10' spans. Smooth-rolling rubber-tired casters. Write The Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y., Dept. NSN.

2'-WIDE LADDER SCAFFOLD

Has same features as 4'6"-wide scaffold, but is only 2' wide. Ideal for maintenance work in narrow hallways and aisles. Rolls right through standard 30" doorway. Can be used with diagonal braces to give spans of 6', 8' or 10' platform. Compact—parts lie flat and take up little room. Write The Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y., Dept. NSN.



SCAFFOLD OPENS LIKE A BOOK

One man can erect the base section of the "Fold-A-Way"* Scaffold in less than a minute. End frames swing open sideways, while the base section is in a standing position, making an easily managed swing of about 90°. Adding additional 6' sections takes just a few minutes. Basic unit is 4'6" x 6' and is 7' high including rubber-tired casters. Ball bearing extension legs permits height adjustment up to 24". Approved by Underwriters Laboratories, Inc. For more information write The Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y., Dept. NSN. (*Trade Mark)

Publish Proceedings of Standards Conference

Cooperation of government and industry in work on standards is the theme stressed in the Proceedings of the Third Annual Meeting just issued by the Standards Engineers Society. The meeting was held at Atlantic City, N. J., October 1 and 2, 1954. The place of standardization in management, and suggestions on how to set up and operate a materials department are also discussed.

Included in the publication are the following: An Adventure in Cooperation (Integration of Government and Industry Standards) by R. V. Vittucci; The Integration of Military and Industry Standards, by S. H. Watson; The Important Problem of Integrating Industry and Government Standards, by R. J. Painter; International Standardization and American Industry, by Howard Coonley; Place of Standardization in Management, by H. Thomas Hollowell, Jr.; and How to Set Up and Operate a Materials Department, by M. A. Williamson.

The 48-page document (multilithed, self cover) is available from the Standards Engineers Society, address P.O. Box 281, Camden 1, N. J. at $3.00.

Even Pirates Had Workmen's Compensation

When first inaugurated in the United States, the Workmen's Compensation Law was to provide partial payment for injuries sustained during employment, regardless of fault.

Germany is commonly recognized as a leader in the field of liability of master to servant and in 1847 provided the first Workmen's Compensation by Statute. In the United States, the State of Wisconsin is credited with establishing the first Workmen's Compensation Law in 1911.

However, all of this seems to have been antedated by a system of compensation that was developed in the early 1500's by the Buccaneers, pirates who preyed on Spanish shipping.

If no prize was captured, there was no pay. If booty was taken, it was divided as follows: First, the captain received an agreed upon sum for the use of his ship; then the ship's surgeon, who perhaps was the busiest man on board, received his salary. Before the loot was divided between the crew, provision was made for those members of the crew who had sustained injuries.

A definite schedule of compensation was set up in the articles of employment, and the following was the one commonly adopted:

Loss of the right arm—600 pieces of eight and six slaves.

Loss of the left arm or right leg—500 pieces of eight and five slaves.

Loss of the left leg—400 pieces of eight and four slaves.

Loss of an eye—100 pieces of eight and one slave.

CONTENTS — sterilized bandages, compresses, gauze of varying types and sizes, tourniquet, forceps, burn ointment, splint, iodine applicators, aromatics and related supplies.

CABINETS — dustproof, moistureproof, wall-mountable, portable, electrically welded of 20-gauge heavy-duty steel. DROP COVER serves as convenient utility shelf.

4 AVAILABLE SIZES — containing from 10 to 36 replaceable units, packed in related multiples to meet potential contingencies.

WHAT HAPPENS?

What protection does your plant provide should an accident occur while part-time physician or nurse is away from the premises . . . an important point also for the small shop without medical facilities.

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The loss of a hand was not compensated. This was on the theory that no wage loss would occur—indeed a man with a hook in place of a hand was felt to be more valuable because he had an additional weapon to use.

This then is the first known compensation system, predicated upon the theory of wage loss.—*Safety Newsletter, Wood Products Section, NSC.*

Unpopularity and Accidents

A recent study makes the point that employees who are liked by their fellow workers tend to be accident-free, but that those least liked have a high accident rate. The researchers found that people who have difficulty getting along with others also have the highest accident record.

"Such people," say the researchers, "lack the perpetual and/or motor skills to handle work dexterously or people diplomatically."

—*Nat'l. Foremans Institute*

Outstanding Engineers To Receive Awards

AWARDS to outstanding engineers who have contributed to the development and use of standards will be one of the highlights at the 4th Annual Meeting of the Standards Engineers Society to be held at Hartford, Conn., September 29, 30, and October 1. Headquarters will be the new Hotel Statler.

The awards will be presented at a luncheon Friday, September 30. Principal speaker at the morning session on that day will be Dr. C. R. DeCarlo, director of applied science, IBM World Headquarters, New York. He will talk on the subject "Without Standards, No Automation!"

The afternoon session will be on "National Strength Related to Standardization." Moderator for the panel discussion will be Roger E. Gay, Director of Cataloging, Standardization, and Inspection, Office of the Assistant Secretary of Defense for Supply and Logistics.

A series of panel discussions on subjects of special interest to standards engineers will be the feature of the September 29 afternoon meeting.

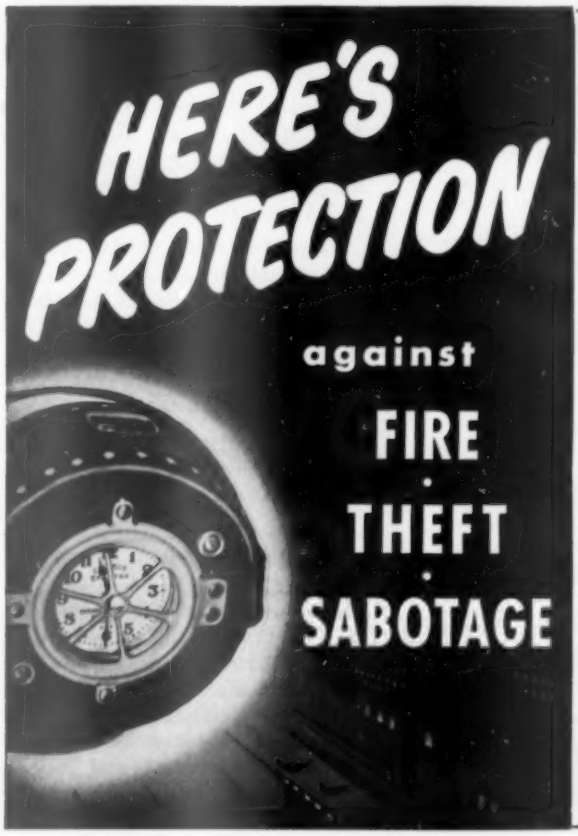
The Saturday morning session (October 1) will be a panel discussion on "What's the Future of Standards?" Vice Admiral George F. Hussey, Jr., USN (Ret), managing director and secretary of the American Standards Association, will be moderator of this session.

Field Service Expansion

—*From page 72*

plans and expanded programs were outlined by George C. Stewart, general manager. Sidney J. Williams, assistant to the president, discussed the basics of accident prevention, today's traffic problems, and the Uniform Traffic Code. Field Service Department policies and functions were presented by W. G. Johnson, assistant general manager, and Mr. Hill.

Methods of building a good



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community program through sound activities were described. Other subjects discussed were motor transportation, surveying community needs, state-city relationships, the Action Program of the White House Conference on Highway Safety, leadership and finance, chemical tests, the Operation Safety project, and the complete services of the NSC in traffic and transportation, occupational, small plant, public information, school and college, and women's activities. At the closing dinner on May 26 General Manager Stewart discussed good public relations.

Franklin M. Kreml, director of Northwestern University's Traffic Institute and the university's Transportation Center, spoke on the traffic problem and M. R. "Bud" Darlington, of the Inter-Industry Highway Safety Committee, described the activities of the Traffic Vehicle Check Program.

Staff assignments announced are as follows:

JAMES K. WILLIAMS, 14 Providence Street, Springfield, Mass., district representative for Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

GEORGE E. GROTZ, 130 Devonshire Road-Fairfax, Wilmington 3, Del., district representative for New Jersey, Delaware, Maryland, Virginia, West Virginia, North Carolina, and Washington, D. C. (except U.S. Government agencies).

EARL F. CAMPBELL, 950 California Street, San Francisco 8, in charge of the San Francisco office and director of the California State Organization Program. Tom A. Burke, assigned to assist Mr. Campbell.

JOHN C. HALL, 950 California Street, San Francisco 8, district representative for Oregon, Washington, Nevada, and Arizona. He will also handle state and city inventories in California under the immediate supervision of the manager of the Field Service Department.

ALTON P. BUNDERSON, 6505 Fairfield Street, Boise, Ida., district representative for Montana, Idaho, Utah, Colorado, New Mexico, and Wyoming.

JAMES E. CIVILS, 510 Tilden Street, Raleigh, N. C., district representative for South Carolina, Georgia, Florida, Alabama, Mississippi, Kentucky, and Tennessee.

JAMES D. HILL, NSC headquarters office, district representative for Louisiana, Texas, Oklahoma, and Arkansas.

Headquarters staff, Field Service Department will be responsible for service in Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, South Dakota, North Dakota, Kansas, Missouri, and Nebraska. Robert G. Schmal will serve as field representative within these states. Harry Porter, C. Harold Kent, and Russell I. Brown will be given part-time field assignments in these states.

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THE READERS' POINT OF VIEW

Comments on topics of current interest are invited. They need not agree with the editors' opinions.

The World Congress

APO 633, NEW YORK—Reference is made to the letter from Mr. Faber Birren in your May 1955 issue.

Mr. Birren's letter is excellent but he was in error in stating that he was the only American representative at the First World Congress for the Prevention of Accidents held in Rome. There were three other Americans present:

Colonel John De Vos, director of personnel, Hq., AMFE (USAFE) Wiesbaden, Germany.

E. L. Newman, chief safety engineer, Hq., AMFE, (USAFE), Wiesbaden.

Edgar Goldstine, consulting safety engineer, San Francisco.

The United States Air Force released a report on the Congress written by Mr. Newman which was forwarded to your office.

FRANK J. FREITAS, *Capt. USAF*
Chief, Ground Safety Division
Air Materiel Force, Europe

Mr. Newman's article was published in the June issue, page 34. Our apologies to those whose names were omitted.

Solvents

DULUTH, MINN.—A copy of the May issue lies on my desk and I have just finished reading "Too Many Solvents?" by R. M. Watrous, M.D. This is by far the best article on the toxicity of solvents I have ever read. I like it so much I would like to have a personal copy of the article. The News on my desk is a company routed copy and must be passed on for others to read.

I would appreciate it very much if you would send me tear sheets.

W. B. SULLIVAN, *Engineer*
Western Electric Co.

Thank you. Many other people liked the article, too.

Japan's Industries

—From page 38

used: Number of injuries × 1,000,000 divided by number of man-hours worked.

With this favorable situation developing, a certificate for a no-accident record was set up. Five classes of awards were established applicable to the whole country and based on the average frequency rate for a particular industry. Nearly 1000 awards up to 1954 have been made for no-accident records. The best record is held by the Tomita Factory of Toyo Boseki Company in the cotton and staple fiber business with 10,335,688 man-hours to its credit.

Special attention has been given to those industries where the accidents are most numerous, either by reason of the nature of the

Latest "BERYLCO" Safety Tool Catalog Shows 400 Ways to Curb Dangerous Sparks

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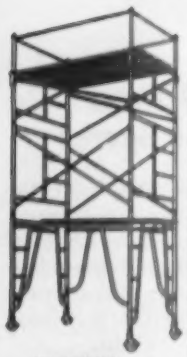

Standard 5' frames with straddle braces.

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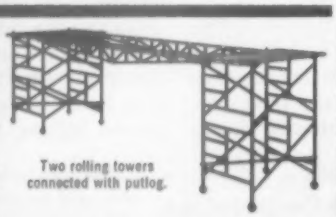

Two rolling towers connected with putlog.

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Washington, D. C.

enterprise or lack of interest in safety. This has resulted in very large and definite reductions in frequency rates.

In addition to the regular functions assigned to the Safety Section, it operates the Industrial Research Institute and the Industrial Safety Museum. The object of the first is to study various problems, concerning equipment, working processes, techniques and management relating to safety and methods for their improvement.

The Museum aims to popularize methods for the prevention of injuries in industry. The Museum, a large two and three story building, houses research laboratories, workshops, information office, library, exhibit rooms, conference and lecture halls. The Museum building was opened to the public in 1943. It was paid for largely through popular subscription.

Closely associated with the Safety Section is an organization which corresponds somewhat to the National Safety Council. It is called the Federation. The Federation contains all Prefectural Industrial Safety Associations as its regular members. Its office is at the Safety Institute. It was established in February, 1953, under the auspices of the Labor Ministry, although the safety movement is over 25 years old.

Kinds of Membership

There are three kinds of membership—honorable, regular and supporting. It is interesting to note that the first has been granted to eleven persons for their long service to safety and who have been awarded medals for distinguished services to the cause.

The Federation has joined the National Safety Council as an associate member. This organization issues reports and proceedings, holds a national safety week annually, a national safety rally yearly, awards medals, and, among other objectives, recommends legislation through cooperation with officials of the government. Mr. Ichira Ito is the managing director. Half of the cost of the Museum building was donated by him, which indicates his generous interest in safety and makes

his appointment as director particularly significant.

The Safety Section of the Labor Ministry is guided in all its operations by the Labor Code of 1952, which forms a part of the Ministry of Labor Establishment Law. Briefly, it may be summarized in the statement of Chapter 1 Article as the "Improvement of working conditions and labor protection."

Provision is made under it for Workmen's Accident Compensation Insurance and the powers for carrying it out, the publication of statistics, maintenance of facilities for welfare and health personnel, testing of machinery and tools, control of construction and other duties. Sanitation also comes within the scope of this bureau and certain auxiliary organizations such as the above mentioned Institute and Museum, plus the Workmen's Accident Compensation Insurance Council and the Silicosis Prevention Council.

The Safety Code

There are some interesting features of the Safety Code, such as the provision that a safety supervisor must be appointed where 100 h.p. or more is used in certain industries or more than 500 persons are employed. Where the latter situation exists the supervisor must have been trained in safety subjects or their equivalent. Safety committees must have representatives of the workers.

In case of injury, employers must furnish medical treatment, and non-duty compensation of 60 per cent of the average wages, during the period of treatment. The death benefit is a payment of 1000 days of the average wage, and funeral expense is equal to 60 days wages.

It is very apparent that the government of Japan and the industries are deeply interested in working out a satisfactory safety program. A highly organized industrial nation has a responsibility which must be realized by those in top governmental and high industrial positions. It appears that Japan has been and is making great strides in demonstrating this fact.

The deep personal interest in safety displayed by those safety-minded men the writer had the pleasure of meeting in Tokyo is almost a guarantee that the safety of workers in industry will not be neglected in Japan.

Industrial Health

—From page 46

nonexistent or are powerless to act because of lack of jurisdiction.

Three states, Oregon, Massachusetts and New Jersey, have recently established air pollution control agencies in their state health departments with power to control air pollution. Three other states, Maryland, Pennsylvania, and Washington, have provided funds specifically for investigations of air pollution problems and for assistance to local agencies.

In most of the other states, some agency, generally the health department, provides assistance to local agencies incidentally to other operations, but such assistance is severely limited by the lack of any specific financial support for air pollution work. In a number of these states legislation dealing with air pollution has been considered recently. There is a trend toward increasing activity by state agencies in the air pollution field.

Trichloroethylene Products

Autoxidation Products of Trichloroethylene, by Leonard L. McKinney, Eugene H. Uhing and John L. White. The Journal of Agricultural and Food Chemistry 3: 413-419 (May 1955).

Attempts have been made to extract oil from soy beans with trichloroethylene three times in the past 45 years. The toxicity of the resultant beef added meal to cattle has resulted in its discontinuance after each trial. The meal in each instance has been shown to produce a fatal aplastic anemia when fed to cattle. Soy bean oil meal prepared by extraction with hexane, benzene or carbon tetrachloride has never been shown to be toxic to cattle in any degree.

The first attempt to use trichloroethylene for the extraction was in Scotland in 1912. At this

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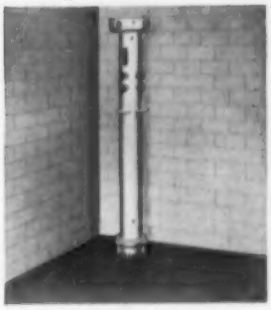

Type KM Column in corner also providing two Showers but *without* partition.

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time it was demonstrated that the feeding of the trichloroethylene in itself to cattle did not produce the typical syndrome and that it was difficult or impossible to produce the characteristic disease in rabbits, guinea pigs, swine or sheep by feeding the soy bean extracted meal.

The same type of disease broke out in a wide area of Germany and Holland in 1923 and was correctly diagnosed in 1924 when the toxic meal was traced to a trichloroethylene soy bean oil extraction plant in Dusseldorf.

Feeding experiments begun in 1938 at Cornell University eventually were interpreted as indicating that trichloroethylene extracted soy bean oil meal was non-toxic when it was processed at a temperature of 120 centigrade for 30 minutes and an efficient process for extracting the oil from soy beans was developed in Iowa State College.

Widespread outbreaks of the same refractory aplastic anemia occurred in 1947 to 1952 in cattle fed trichloroethylene extracted meal produced in plants in the United States, Italy and Japan. In the course of these outbreaks the meal was also shown to be toxic to sheep although it did not produce the typical aplastic anemia.

In examining the cause of this toxicity the authors have examined trichloroethylene from soy bean oil extraction plants and also from the manufacturers. The new trichloroethylene was found to contain 0.02 per cent by weight of triethylamine which is known to be an efficient stabilizer against oxidation. The trichloroethylene taken from the tanks and extraction plants was always found to be slightly acidic and never contained triethylamine. In previous use of trichlorethylene for extraction of soy beans butanol has been used as a stabilizer.

It is known that in the presence of air or oxygen trichloroethylene undergoes an oxidation which is autocatylized by the oxidation products.

In the present investigation the oxidation was initiated by means of benzoyl peroxide or partially oxidized trichloroethylene. The

oxidation proceeded in the dark or in the light. The oxidation was not substantially changed by a hundredfold variation in the amount of benzoyl peroxide added or by the addition of water. The products were phosgene, carbon monoxide and hydrogen chloride in small amounts in the gas phase and a large amount of dichloroacetic acid and hydrogen chloride in the liquid phase. There was also a small amount of carbon dioxide which was attributed to a slight decomposition of the benzoyl peroxide.

It is postulated that the dichloroacetic acid is produced through trichloroethylene expoxide since, if the reaction product was treated with aluminum chloride prior to hydraulisis chloral could be produced along with the dichloroacetile chloride. Under proper conditions glyoxylic acid and formic acid could also be produced by hydraulisis of the trichloroethylene peroxide.

While this intermediate was not isolated it is to be expected that it will be a highly reactive material and it may be the basis of the toxicity of trichloroethylene extracted soy bean oil meal.

Controlling Air Pollution

Remedial Measures in Air Pollution Which Have Been Taken By An Industry, Including a Discussion of Costs. By Virgil E. Gex. The American Journal of Public Health 45: 622-626 (May 1955).

The air pollution problems at Procter and Gamble are different from most in that they do not create any physical health problems as far as is known. They are of two types, release of odors and release of dusts. Both the odors and the dusts may be annoying to the community in which the factory is operating and, in common with most of the larger chemical industries, this company has given a considerable amount of attention to the control of both types of emissions as a community relations matter. The dusts are usually useful products and they are actually controlled as a matter of course in plant design to keep the cost of operations as low as possible and to recover as much as possible of the useful product so that the air pollution

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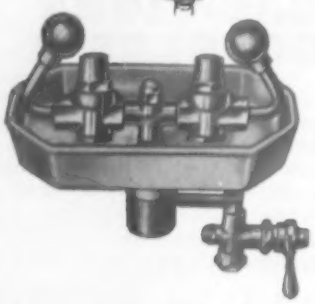

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control engineering section has been most concerned with odor problems.

One of the difficulties in odor control is that there are no quantitative measurements of odor and actually no method of measuring odor except by the human nose. The usual method of measurement is to dilute the odorous sample to the threshold and to class as the odor unit the number of volumes of odorless air required to dilute one volume of the sample to the threshold of odor. Therefore, for a variety of reasons common to measurements involving physiological standards this method has a possible error of 25 to 50 per cent in many cases.

In many instances the emission of odors from the plant can be reduced to an insignificant amount by close control of the operating techniques. Such techniques, for instance, as steaming tanks and tank cars at such a rate that the waste of steam does not issue from the vent, carrying odors with it and as getting quickly into process raw materials which rapidly become odorous. This type of technique is attractive to management because it involves little or no investment. It does require constant vigilance on the part of supervision to keep such operating techniques in force but the attitude produced in both line supervision and workmen by the continuous application of such operating techniques can probably do as much to control odors from the plant as can all of the odor control equipment which can be installed.

Occasionally the processes can be changed to reduce the odor produced, either by a change to a method which does not produce odor or by change to a method which spreads an amount of odor necessarily produced over a sufficient time as it does not become obnoxious.

When these methods do not work the odor must be reduced by control equipment designed for that purpose or by dispersion into a large amount of air as by emission from atop a tall stack.

From very many processes the odors are carried out either by steam or by vapor of solvents

other than water and can be trapped by condensers or absorbers of various sorts or, sometimes, by particle separators such as cyclones or filters. In many instances the odorous material can be burned by passing it through a hot furnace while mixed with a sufficient amount of air.

Since the odor control program was set up at Procter and Gamble in 1945 over $2,800,000 worth of pollution control equipment has been installed with an annual operating cost of over $700,000. A substantial part of these installation and operating costs are offset by the value of recovered products although figures are not easily available. Over $1,000,000 has been invested and an annual operating cost of about $400,000 is spent on equipment which recovers no product.

Genesee Valley Conference Planned for 1956

The first Genesee Valley Safety Conference will be held in Rochester, N. Y., on April 17-19, 1956, William J. Enders, president of the conference organization, has announced.

The three-day meeting will have sessions on various phases of industrial, traffic, commercial carrier, and school safety, and fire prevention. A safety exhibit, planned for the Rochester Chamber of Commerce building where most conference activity will center will have an estimated 50 booths.

Sponsorship of the conference is in the hands of Genesee Valley Safety Conference, Inc., a newly-formed, non-profit organization. It represents the supporting interest of the Rochester Safety Council of the Rochester Chamber of Commerce, the Genesee Valley Chapter, American Society of Safety Engineers, and the Rochester Industrial Management Council.

Other Rochester organizations are being invited this month to affiliate with the GVSC, Inc., in planning next year's events.

Enders, who heads the list of officers and directors, is in charge

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of ground safety for civilian personnel at Sampson Air Force Base. The others are: vice-president, William C. Kullick, safety director for DuPont in Rochester; and secretary-treasurer, William H. Keeler, director of the Rochester Safety Council.

Directors are: Allen L. Cobb, director of safety at Kodak Park Works, Eastman Kodak Company; Jacob Gitelman, Rochester attorney; C. Wilson McMath, safety engineer, Employers Mutual of Wausau; C. Eugene Shear, American Allsafe Company, Buffalo, N. Y.; and Richard J. Toole, Rochester Industrial Management Council.

It is planned to conduct the Genesee Valley Conference every third year, Enders said. This triennial schedule will aid coordination with Syracuse and Buffalo groups that have been holding biennial conferences.

Personals

—From page 42

ond vice-president, James J. Duggan, superintendent of mechanical and fire safety, Carbide and Carbon Chemicals Co., South Charleston, W. Va.; and secretary-treasurer, Robert S. Moulton, technical secretary, National Fire Protection Association, Boston.

C. P. "JACK" SHIREY of Beaumont, Tex., has been promoted to the newly created position of training and safety manager for Gulf States Utilities Company and Frank W. Jones of Baton Rouge, La., has been promoted to succeed him as safety director. Both will have offices in Beaumont.

Mr. Shirey will assume charge of an employee development program for all personnel in addition to overall supervision of the safety program of the company.

Both Mr. Shirey and Mr. Jones are long-time Gulf States employees. Mr. Shirey, who attended the University of Alabama and worked with several other utilities before coming to Gulf States, began with the company as an electrician in 1929.

Mr. Jones came to Gulf States in 1929 as a groundman in Beaumont. He later worked there in the meter department and distribution department. While working, he attended Lamar College and completed extension work from Texas University and Texas A & M College to earn his professional engineers license.

NSC Staff Changes

RAYMOND C. ELLIS, JR. has been appointed senior engineer in the Industrial Department of the National Safety Council. He will serve as staff representative to the Food Section and to the Trades and Services Committee.

For the last 17 years Mr. Ellis has been affiliated with Marshall Field and Company, where he has served at various times as personnel manager for the manufacturing division, veterans' apprentice training program coordinator, personnel manager for the operating and delivery service division, warehouse section manager, and for the past three years as safety director for the Chicagoland operations.

A graduate of Ohio State University and the University of Chicago, Mr. Ellis served with the psychiatric services attached to the Air Force during World War II.

He is a member of the American Society of Safety Engineers and has served on the society's Chicago Chapter executive committee as chairman of the public relations committee. He has also served on the President's Conference on Occupational Safety as a member of the Committee on Community Safety Programs.

ROBERT D. GIDEL has been named safety supervising engineer in the Safety Division, Bureau of Labor Standards, United States Department of Labor.

For the past three years senior consulting engineer, Industrial Department, National Safety Council, Mr. Gidel was staff representative to the Food Section when he left the Council. He also has served as staff representative to the Construction and Metals Sections and was chairman of the staff activities committee for the Council.

He was a frequent contributor to the NATIONAL SAFETY NEWS.

Readers will remember his monthly feature, "Cases for Comment," and his sprightly editorials on various phases of accident prevention.

Formerly an engineer with the Hartford Accident and Indemnity Company, Mr. Gidel holds an industrial engineering degree from Washington University, St. Louis, and is a 1954 graduate of John Marshall Law School, Chicago, where he attended night classes.

Explosive Atmospheres

—*From page 27*

hazardous area, all electrical equipment at Division 1 locations must be completely explosion-proof or dust-tight. Only at Division 2 areas does the code allow ordinary enclosures for non-arcing electrical devices.

To cope with flammable gases or vapors, explosion-proof enclosures are used. An electrical device is explosion-proof if it is "enclosed in a case which is capable of withstanding an explosion of a specified gas or vapor which may occur within it, and of preventing the ignition of the specified gas or vapor surrounding the enclosure by sparks, flashes, or explosions of the gas or vapor within."

This does not mean that equipment must be gas or vapor-tight. The cost of hermetically sealing off the joints of raceways and enclosures would be prohibitive. Moreover, if gas or vapor-tight electrical devices were installed, they would lose their sealed properties whenever opened for repairs or routine inspection.

Producers of electrical equipment have overcome this problem by making explosion-proof enclosures both flame-tight and strong enough to withstand a repeated number of internal explosions.

For strength, cast iron alloys or aluminum are used for housings. In a junction box of moderate size, explosion pressure may average about 125 pounds per square inch. Since Underwriters' Laboratories approve only explosion devices possessing a safety factor of four, the junction box must withstand at least 500

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pounds hydrostatic pressure per square inch.

For flame tightness, the enclosure is equipped with either flat or threaded joints which allow the entry of flammable gases or vapors. After the mixture explodes inside the enclosure, however, only cooled, harmless exhaust gases pass through the joints to the outer atmosphere.

Flat joints provide a passage between the enclosure cover and body of less than .0015 inch (another UL requirement). Threaded joints have the advantage of increasing the length of the flame path and offer greater strength without need for bulky flanges, screws, and bolts. (UL requires a minimum of five full threads completely engaged.)

In addition to strength and flame-tightness, explosion-proof electrical devices must operate at temperatures (specified by UL) below the ignition points of the vapors or gases encountered.

Combustible dusts present a two-way danger. In addition to setting the stage for flash fires, dust can collect on electrical apparatus in amounts large enough to cause overheating. The result is either a flash fire or a dust explosion.

Examples of combustible dusts are: starch, grains, aluminum, sulfur, magnesium, wood flour, synthetic resins, coal and coke, and spices and herbs. There are many more—about 150 different types all together. The National Fire Protection Association has prepared fire codes for 15 industries in which combustible dusts are fire hazards.

Metal and carbon dusts, aside from being explosive, are dangerous in another way. Because they are electrically conductive, these dusts can lodge on live parts, ground equipment and cause short circuits.

This problem can be solved by using dust-tight electrical equipment for Class II areas.

Enclosures for Class II locations must operate, even when caked with a heavy blanket of dust, at a temperature below the dust's ignition point. Maximum safe temperatures have been set by Underwriters' Laboratories for Class II dust groups. Switches, circuit breakers, fuses, panel boards, lighting fixtures, motors and the like when covered by dust deposits must not attain temperatures higher than 392 F for metal dusts, carbon black, coal or coke dust and not higher than 329 F for grain dust.

The First Skirmish

—From page 37

were, and Joe stated them fast. "Goggles, housekeeping, and guarding." I said, "Guarding takes time and money; let's go fast and hard on the goggles and housekeeping. I don't know whether we've got a day or a month before the new boss arrives, and I want results that have at least a chance of showing."

At three o'clock in the afternoon, Joe and I walked into Department C. The foreman acknowledged his introduction to me—but just barely. He was too busy to talk, he said, and turned his back on us and walked away. We made our inspection look impressive, taking our time, occasionally very obviously calling each other's attention to particularly bad conditions and solemnly noting them on our report forms. The foreman stood it until I set up a camera sighting down a main aisle with stacked material crowding it from both sides. Then he came up in a hurry, demanding to know why we were disrupting the work of his department.

"I'm making a survey of major hazards," I said.

He told me that nobody, least of all a blankety-blank snooper from the safety department, was going to go around putting him on the spot, when he was doing his level best to get out production safely. I asked him if he thought the cluttered aisle was advancing safety, and he told me nobody ever got hurt by piling material there. "Then you shouldn't object to our taking pictures," I said. To that he replied that before any pictures were taken or inspections made he would have to have half a day's notice to get things in shape.

Then I suggested, "Since I

think this is the right thing to do, and since you don't, maybe we'd better go see the superintendent. I'll explain why I want to do it, and you explain why you don't want me to and he can decide. And, while we're at it, let me pass on a suggestion to you. We've counted 16 men doing definitely eye-hazardous machine work who are not wearing eye protection of any kind. I think you'd better—"

That was as far as I got. Joe and I were ordered out of the department and told not to come back. The foreman, in answer to my question, told me with profane emphasis that he didn't care who or what I was, and that he didn't want to see my report this side of hell. I said, "Okay," picked up the camera and tripod, and walked out.

Back in the office I put Joe on the job of writing a frank inspection report, while I dictated an accurate memo to the superintendent on our conversation with the foreman, concluding with a request that the super give us authority to conduct our work in the department along proper and reasonable lines.

When we were shutting up shop at five o'clock, Joe said to me, "You know, I'd forgotten that safety work could be fun. I'd forgotten what it was like to fight and expect to win."

I warned him, "This is just a skirmish, and we picked our own ground. Some of the fights won't be easy, won't be set-ups against fools, but tough struggles on doubtful ground against able men."

"Yes," Joe said, "I know. Maybe we'll get our necks broken before we're through. But, golly, it's going to be a lot of fun while it lasts!"

I think, all things considered, that I made a right move in keeping Joe.

Purposeful Color

—From page 21

a distance, large green crosses are painted high on walls or columns. This color also is used on safety showers and on floor areas under them.

Precaution Blue (symbolized by round disc). Blue is used by

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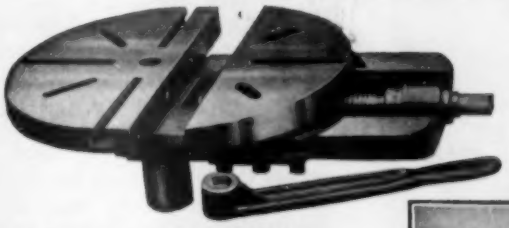

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American railroads to mark cars or equipment being loaded, unloaded or repaired to warn against moving such cars except on authority of the man who put up the blue sign.

Other industries use Precaution Blue on electrical control panels, switch boxes, welding generator boxes, electrical control cabinets for machinery, cranes, winches, etc. An unobtrusive color, it serves to classify such equipment and to act as a silent reminder to see that everything is clear before starting operation.

Precaution Blue also is used in the form of large signs marked "Out of Service," or "Do Not Operate," for machines cut down for repair, elevator controls, scaffolding, boilers, ovens, driers, tanks, vats, kilns, and wherever caution must be observed. Shop rule should demand that all equipment so marked shall not be used or operated until the man who put the sign in place is consulted and clearance thus granted.

Radiation Purple (symbolized by a purple propeller target on yellow). Here is a new color symbolism to protect against exposure to nuclear radiation associated with radioactive isotopes, radio-chemicals, and fissionable materials. This symbol is placed on doors and door frames leading to hazardous areas, on containers, chests, vaults and on labels which must be attached to door handles, locks and receptacles.

Traffic White, Black, Gray (symbolized by lines or a star). These neutral colors are used for aisle markings, storage area lines, waste receptacles and other limited purposes. It is good housekeeping practice to paint white areas under waste receptacles, in corners and along the edges of stairways to discourage littering. A five-pointed star may be used above receptacles to aid location from a distance.

Other Safety Symbolism

Other standardized practices related directly or indirectly to safety include:

Piping Identification. A color code for industrial piping has

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been in existence since 1928. For the most part, however, color is being used less and less for this purpose; the chief reason being that the problem has become too complex due to the great variety of liquids and gases found in modern plants.

The ASA code (A13-1928) suggests red for fire protection; yellow or orange for dangerous materials; green, white, black, or gray for safe materials; blue for protective materials and purple for valuable materials. Combinations of the colors may be designed to answer the requirements of individual plants.

Signs. The ASA code (Z35.1-1941) calls for danger signs in white, red, and black; yellow for caution; green for safety instruction; blue for information, general notices, and slogans; black for direction signs.

A color code for highway signs is issued by the Public Roads Administration, Federal Works Agency, Washington, D. C.

Compressed Gas Cylinders. All U. S. government services recognize a color code for compressed gas cylinders (MIL-STD-101). Yellow is used for flammable materials, brown for toxic materials, blue for anesthetics and harmful materials, green for oxidizing materials, gray for physically dangerous materials, red for fire protection. Various color combinations involving some 40 or more gases are given in the code.

Shop Helmets. Both the U. S. Navy and Coast Guard use colors and color combinations to identify hard hats. Functionally, the lighter colors, because of high heat reflection, should be used for workers who spend most of their time in the open.

Gas Masks. The U. S. Bureau of Labor Statistics has published a color code for the identification of gas masks. White is used for low concentrations of acid gases; black for low concentrations of organic vapors; green for ammonia gas; blue for carbon monoxide; yellow for concentrations of organic and acid fumes; brown for acid and organic vapors and

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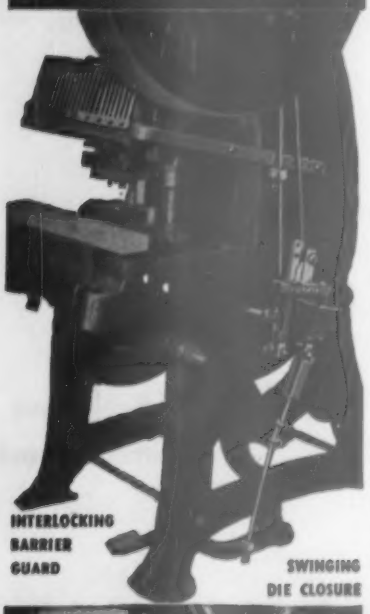

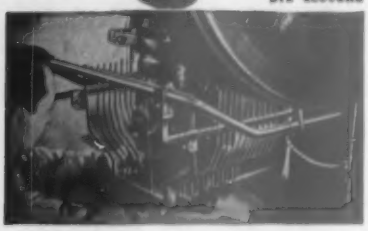

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Aviation Obstruction Marking. Industrial plants located near aircraft landing areas are required by the Civil Aeronautics Administration to use International Orange on tall structures, smoke stacks, water towers, poles, tanks, etc.

Color Standards, Publications, and Codes

Aviation Obstruction Marking: Regulations and Standards published by the U. S. Department of Commerce, Civil Aeronautics Administration, Washington, D. C.

British Standards Institute: Uniform practices and standards have been issued for ready-mixed paints; vitreous enamel finishes; light signals; identification of chemical pipe lines; engine room piping; pipes, conduits and cables in buildings; gas cylinders; medical gas cylinders; inks; camouflage paints; etc. Address 24/28 Victoria Street, Westminster, London, S. W. 1, England.

Color Aptitude Test: Prepared by a committee of the Inter-Society Color Council. A fairly difficult and therefore useful test to evaluate human ability to see differences in color. May be used to screen workers who must have accurate color judgment. Available at $125.00 from Federation of Paint and Varnish Production Clubs, 121 South Broad Street, Philadelphia.

Compressed Gas Cylinders and Pipelines Color Code: This military standard has been approved by Departments of the Army, Air Force and Navy, and is mandatory. Six colors are employed—yellow, brown, blue, green, gray and red. MIL-STD-101 issued by Munitions Board Standard Agency, and available from U. S. Government Printing Office, Washington, D. C.

Federal Color Card: A Federal Specification which standardizes the colors used throughout the Government. An important reference book for private industry as well. Contains 187 samples in gloss, semi-gloss and lustreless finish in heavy binder. Prepared by General Services Administration, and available from U. S. Government Printing Office, Washington, D. C.

Gas Masks: A system to identify respirators and gas masks in industry. The colors used are white, black, green, blue, yellow, brown, red. Bulletin 512, prepared by U. S. Department of Labor, Bureau of Labor Statistics. Available from U. S. Government Printing Office, Washington, D. C.

Gray Finishes for Industrial Apparatus and Equipment: Publication Z55.1-1950, American Standards Association, 70 E. 45th Street, New York.

Inter-Society Color Council: An effort to develop a standard designation for colors, using words commonly understood. Approved by various associations and applicable to widespread use in science, art and industry. Research Paper RP1239, U. S. Department of Commerce, National Bureau of Standards, Washington, D. C. A new revision of the method is now in process.

Munsell Value Scales for Judging Reflectance: Designed in collaboration with the Illuminating Engineering Society for illuminating engineers, architects and interior decorators. Eleven charts show 179 swatches of color and give reflectances under tungsten light, daylight and blue sky. Available at $15.00 from Munsell Color Co., 10 East Franklin Street, Baltimore, Md.

Piping Identification: Scheme for the uniform identification of piping systems in industry. Publication A13-1928. Available from American Standards Association, 70 E. 45th Street, New York, N. Y.

Safety Color Code: A condensed version of the Faber Birren-Du Pont Code. Standard Z53.1-1953, American Standards Association, 70 E. 45th St., New York.

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Signal Glasses: Scientific description of colors used in signal glasses: red, yellow, green, blue, purple, lunar white. Signal Section Specification, 69-35, Association of American Railroads, Transportation Building, Washington, D. C.

Specification and Description of Color: Standard Z44-1942, issued by the American Standards Association, 70 E. 45th Street, New York.

U. S. Army, General Paint Specifications: Supplement to No. 3-1, issued by the Quartermaster General, Washington, D. C. The Office of the Chief of Engineers, Department of the Army, Washington, D. C., also issues 9 color standards used for maintenance and repair, alterations, improvements, etc., in buildings owned or leased by the Army. Federal Specifications TT-P-47 and TT-P-40.

U. S. Color Standards for Public Buildings: Issued by Public Building Service, Washington, D. C.

U. S. Martime Commission Standard Color Card: Also *Standard Colors for Flags.* Available from U. S. Maritime Commission, Washington, D. C.

Veterans Administration Master Paint Color Guide: Issued by Veterans Administration Construction Service, Color Design Unit, Washington, D. C. For service use only.

Conveyors

—*From page 29*

Materials handling is hazardous. According to *Accident Facts,* 22 per cent of all disabling accidents reported by nine State Labor Departments were due to handling objects. Also, 26 per cent of temporary total injuries were attributed to this cause. Back strains and hernia costs are the highest factor in compensation costs.

The big advantage of a conveyor system is that it reduces to a minimum the number of times an object or material must be handled manually. It is not only economically sound but also a distinct safety feature to keep material on conveyors continuously.

All of the safety measures described here and many more are completely covered in American Standard Code B20.* The present code, published in 1947, is now being revised. It is expected that the revision will be completed this year.

* The full title of the present code is *Safety Code, Conveyors, Cableways, and Related Equipment, ASA B20.1-1947.* It is published by the American Society of Mechanical Engineers, 29 West 39th Street, New York 18.

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Easy to Read around the Clock...

. . . and in any kind of weather, too, Diamond Bulletin Boards are easy to read. They are illuminated, ventilated and non-fogging, so that your messages posted on a Diamond Bulletin Board can be read in any weather, at any time of the day or night.

They will give years of good service, too, because they are made of heavy gauge steel with green lacquer finish. Metal straps provide a convenient method of hanging. The upson board used for mounting can also be used as a blackboard, if you want to write a notice directly on it. Use them indoors and out. Order now and ask for literature on our complete line of safety equipment.

SAFETY FIRST SUPPLY CO.
425 Magee Street, Pittsburgh 19, Pa.

Calendar Contest Winners for May

First prize in the National Safety Council's Safety Calendar Contest goes this month to Walter M. Sult, ACF Industries, Inc., Berwick, Pa. The theme in this contest was expect the unexpected. Mr. Sult's line was adjudged the best of all those submitted. It was:

Parents "know-how," plus "show-how," brings joys.

Second prize went to Mrs. Peggy McCroskey, Bethlehem Steel Corp., San Francisco, for this line:

Should have "put her foot down" on those boys!

Third prize was awarded to Mrs. Mary McCullough, Timber Products Co., Medford, Ore., for the following line:

Wrong way, Ma, to drop avoirdupois!

The May limerick was:

You would think that Ma Smith with four boys
Would expect to encounter stray toys.
But she looked down too late
To avoid that stray skate

Thirty $5 Awards were issued to:

Mrs. Clarence W. Keck, Illinois Power Company, Decatur, Ill.

Rose V. Burnham, Willsboro, N. Y. (Individual Member)

Raymond Welsh, Pittsburgh and Conneaut Dock Co., Conneaut, Ohio.

Mrs. Donald L. Goulet, Wisconsin Telephone Co., Milwaukee, Wis.

William H. Martin, North American Cement Co., New York.

Warrick E. Lee, Bell Telephone Co., Carbondale, Pa.

Lloyd Sotherden, Alpha Portland Cement Co., Jamesville, N. Y.

Mrs. Arnold Adams, Hilton, Mass. (Individual Member)

James W. Smith, Ex-Cell-O Corp., Detroit, Mich.

Mrs. Howard Clary, Indiana Bridge Co., Inc., Muncie, Ind.

Mrs. Geneva U. Van Brunt, Westinghouse Electric Corp., East Springfield, Mass.

Mrs. Vera L. Pelton, United Air Lines, Seattle, Wash.

Mrs. Aurelia Grove, C. & E. I. Railroad, Danville, Ill.

Mrs. Marie Armstrong, State of Kansas, Topeka, Kans.

Mrs. Emmett Williams, Marshalltown, Iowa. (Individual Member)

George Gambler, Bethlehem Steel Co., Bethlehem, Pa.

Mrs. Ned Fish, University of Missouri, Columbia, Mo.

Mrs. Casper Kight, Sr., Celanese Corp. of America, Cumberland, Md.

Lois R. Kodalen, Dodson, Mont. (Individual Member)

Mrs. Marie Thibo, Indianapolis, Ind. (Individual Member)

Miss Elizabeth J. Moore, Carolina Power & Light Co., Asheville, N. C.

H. D. Bolton, Lockheed Aircraft Corp., Burbank, Calif.

F. M. Kratschmer, Union Wire Rope Corp., Inc., Kansas City, Mo.

For Safety
Guardi-Ann Hat

Combines utmost protection and style. Exclusive patented features found in no other hat.

Write for Free Sample or Order Direct from us

$15.00 dz.

CHIC MAID HAT MFG. CO., Inc.
630 HIGH STREET
BUFFALO 11, N. Y.

Industry and Government
should combine in the campaign against
DRUNKEN DRIVING
by adding to your present procedure a simple accident *must* for determining intoxication.

The Harger Drunkometer, used nationally in industry, is the oldest and most widely used of the breath methods.

Write today for information and list of successful users. N-106.

STEPHENSON CORPORATION
RED BANK NEW JERSEY

FOR STUBBORN VALVES

The Bergman SAFTY-SPANNER

Developed for the job by the men who use them daily.

3 SIZES 12"—18"—26½"

1¼" to 2¼" JAW OPENINGS

It's a helper you can trust!

CAN'T SLIP OFF
WON'T DAMAGE VALVES
IT'S SPARK PROOF

Made of toughest aluminum-magnesium alloy. Light in weight. Self-centers automatically for quick application. Operates up to 45° angle with positive fulcrum. 800# tested handle pressure. Withstands 5000# pressure at jaw hook.

PROTECT YOUR WORKERS WITH SAFTY-SPANNER

Sold in Canada By Safety Supply Co. 214 Kings St., East, Toronto 2

Jobber Inquiries Invited

Bergman SAFTY-SPANNER CO.

927 Butler St. Toledo, Ohio

NO-FOG
Lens Cleaning Tissues

USE JUST WATER
NO CHEMICALS NEEDED

4 Boxes—1000 Tissues Each
Size 4½" x 10¼"—$7.00

Complete with Bottle & Sprayer
Price — $5.45

This new, chemically treated tissue is low in price and does away with expensive chemical sprays.

Cleans and no-fogs goggles, eyeglasses and welding lenses with the addition of water only.

Tissues can be used several times.

Contact your nearest jobber or write us for samples and literature.

Distributors wanted. Write for proposition.

CARHOFF COMPANY

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Mrs. Raymond Wallace, Tennessee Valley Authority, Chattanooga, Tenn.

Edith E. Blackford, El Cajon, Calif. (Individual Member)

James Marsh, Quaker Oats Co., Cedar Rapids, Iowa.

Paul K. Hartsell, Central Fibre Products Co., Tama, Iowa.

Mrs. William H. Thompson, Memphis, Tenn. (Individual Member)

Charles R. Bahde, Soennichsen's Dept. Store, Plattsmouth, Neb.

Mel Blank, Bergstrom Paper Co., Neenah, Wis.

Small Business

—*From page 12*

day course was co-sponsored by the Purdue Public Safety Institute, the Central Indiana Chapter ASSE and the safety councils of Fort Wayne, Indianapolis and South Bend. National Safety Council staff members advised in the planning of the course and, with representatives of the stock and mutual insurance companies, industrial companies and University staff, participated in the 17-session course.

Although the course was well publicized through the mailing of thousands of promotional leaflets, only a few small companies were represented. However, it is hoped that a continued promotional campaign will create enough interest to warrant holding similar short courses in other Indiana cities served by the Public Safety Institute.

NSC Section Boasts of Association Support

At the spring meeting of the executive Committee of the Cement and Quarry Section, five associations were represented:

National Sand and Gravel Association
National Crushed Stone Association
National Slag Association
National Lime Association
Portland Cement Association

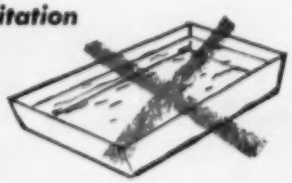
For many years, trade associations have been active in the work of the Cement and Quarry Section and all trade associations in the industry represented on the Executive Committee. Gil Grieve, Staff Representative for the Section and your reporters have been privileged to work with a number of these associations and find that this cooperative effort is enabling the Section to extend its influence.

STOP ATHLETE'S FOOT...

with SANI-MIST

DON'T SPREAD IT

with old fashioned methods of foot sanitation



SANI-MIST eliminates: Foot baths; Foot pads; Messy floors; Contamination; Dilution; Re-use of solution. The SANI-MISTER dispenses an individual full strength treatment that kills the principal fungi causing Athlete's Foot in less than 30 seconds.

Preferred by schools, clubs and industries from coast to coast. Send coupon now for full details.

Gentlemen: N
Please send complete details of the safe, clean SANI-MIST method of Athlete's Foot prevention.

Name.....Title.....

Company.....

Address.....

City.....Zone...State.....

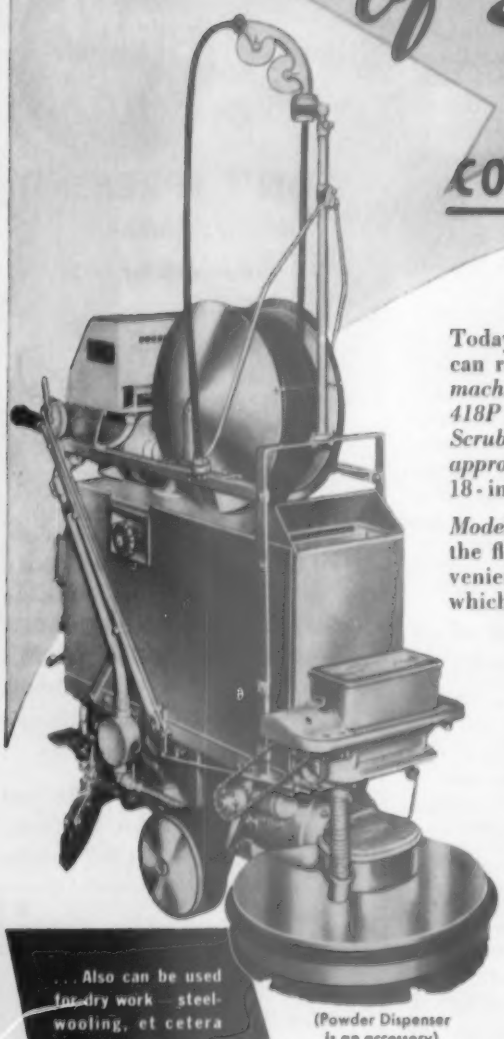
SANI-MIST INC.
1724 Chestnut Street, Phila. 3, Pa.

SMALL-AREA BUILDINGS...

Save 2/3 of Every Hour of Scrubbing Time

WITH A

COMBINATION SCRUBBER-VAC!



...Also can be used for dry work — steel-wooling, et cetera

(Powder Dispenser is an accessory)

Today, even buildings with but 2,000 to 15,000 sq. ft. of floor space can reap the labor-saving, cost-reducing benefits of *combination-machine-scrubbing.* Here's a *Combination Scrubber-Vac, Model 418P* at left, that's specially designed for such buildings. This *Scrubber-Vac,* which has an 18-inch brush ring, cleans floors in *approximately one-third the time* required with a conventional 18-inch machine and separate vac unit.

Model 418P applies the cleanser, scrubs, and picks up (damp-dries the floor) — *all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's *self-propelled,* and has a *positive* clutch. There are no switches to set for *fast* or *slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs efficiently and quietly. (Powder dispenser is optional.) Compactly built, the *418P* also serves advantageously in larger buildings for the care of floors in narrow aisles and congested areas.

Finnell makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in *self-powered* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for *your* job (no need to *over-buy* or *under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac,* and that *there's a Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 2207 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

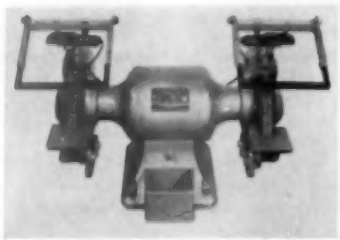
BRANCHES IN ALL PRINCIPAL CITIES

NEW SAFETY EQUIPMENT

Further information on these new products may be obtained by writing direct to the manufacturer or by circling the corresponding item number on the Reader Service Postcard.

Grinder Shield

A simple, low cost means of providing additional protection to workers eyes using grinders has been announced. Called "Saf-Sight Shield," a 5 inch by 7 inch laminated safety glass and cover glass are retained in a sturdy sheet metal frame. The cover glass may be replaced when it becomes pitted or scarred. The shield is held in position by a "T" Mounting Arm, and Mounting Bracket, which is attached directly to the grinder wheel by two bolts. The colored finish of the frame eliminates glare.



The "Saf-Sight Shield" is completely adjustable to adapt it to a wide range of sizes and varieties of grinders, and to allow room for operator's hands and varied positions of operation.

A light is available that is easily attached to the mounting arm.

Junkin Safety Appliance Co., 101 So. Floyd St., Louisville 2, Ky. (Item 1)

Portable Loading Dock

Motor trucks may now be loaded or unloaded from ground level with a new portable loading dock. The loading dock eliminates the need for permanent docks, truck wells or elevators. A highly portable unit, it can be rolled by two men up to the tailgate of over-the-road trucks, and can be used either inside or outside of the plant.

The loading dock has a capacity of 6,000 pounds. Its battery or A.C. powered hydraulic elevating mechanism will raise loads up to a maximum height of 56 inches. The unit

occupies little floor space when not in use and folded up.

Raymond Corporation, Greene, N. Y. (Item 2)

Fire Hose Nozzle

A fire hose nozzle designed for permanent attachment to lines of hose or hose racks and hose cabinets has been announced. Known as Model NHR-15, the flow of water through this fog nozzle can be changed from straight stream . . . to fog . . . to shut-off with the flick of a wrist. The new nozzle, available in satin brass finish or chromium plate, was designed to replace conventional straight stream nozzles usually found on inside hose.

The manufacturer says Model NHR-15 has varying patterns of water fog which are effective on burning liquids as well as general combustible blazes, and aids in shielding firemen from excessive heat.

Fyr-Fyter Company, 221 Crane St., Dayton, Ohio. (Item 3)

Loadbinder

A new series of E-Z Pull Loadbinders featuring a patented cam action, is now available. According to the manufacturer, pull-down to lock position is so easy that cheater bars are usually unnecessary, and dangerous handle snap-down is eliminated. Cam action eliminates slack-off when handle is pulled down or locked. The design also permits use of the loadbinder around

curves or square corners without slack-off. Safety features include elimination of dangerous kick-back when handle is released. The Loadbinder is available in twelve different models.

Texas Foundries, Inc., P. O. Box 180, Lufkin, Texas. (Item 4)

Sweat Bands

The Aircool Sweatband, made of perforated pure foam rubber, and reinforced with a cotton backing, has been developed. The perforations aid evaporation of water and

circulation of air. The foam rubber body is durable, tear resistant, soft and resilient. The sweatband is made with adjustable elastic headbands.

Pulmosan Safety Equipment Corp., 644 Pacific St., Brooklyn 17, N. Y. (Item 5)

Fire Preventive Containers

A cover that closes automatically in the event of fire is available for converting 55 or 30 gallon steel drums or standard corrugated trash cans into fire preventive containers. Easily attached, the cover fits firmly to the drum by means of an adjustable strap. Normally the cover is held open by a spring plunger

unit containing a low melting point fusible link, and should fire occur either nearby or in the drum, the fusible link melts, releases the spring-loaded plunger, and the cover closes. The fusible link is easily and cheaply replaced.

The cover is also available for 11 inch pails.

Protectoseal Company, 1920 So. Western Ave., Chicago 8, Ill. (Item 6)

Vacuum Cleaner

A noiseless vacuum cleaner, Tornado Model 240, was recently introduced. The Tornado is a combination of power supplied by a heavy duty multiple stage 1 H.P. motor and scientifically designed noise suppression and dissipated air discharge to reduce operating noise level.

It uses an internal type filter, and a by-pass type motor where cooling air from the motor does not come in contact with dirt and moisture-laden suction air.

Including such features as a water shut-off valve, and a snap lock pin for quick hose connection, the cleaner can also be used in wet pick-up when the filter is removed.

Performance features show an air velocity of 350 m.p.h., an air volume at 1½ inch opening of 134 cubic feet per minute, and the static pressure, or water lift, is rated at 62 inches, according to the manufacturer.

Brauer Electric Manufacturing Co., 5100 N. Ravenswood Ave., Chicago 40, Ill. (Item 7)

Work Shoe Sole

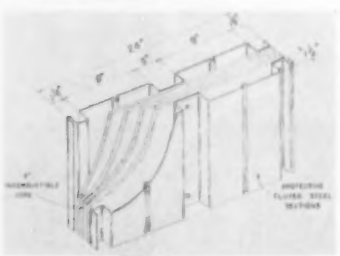
A dress type neoprene industrial sole has been introduced and is called the Neo-Nuclear.

The Neo-Nuclear sole is a long-wearing stitchable material that combines the advantages of the conventional neoprene sole including resistance to oil, heat, acids and caustics, and has the good looks of a dress shoe sole. It was developed to fill the needs of plant executives, foremen and others who must work in both the office and the plant and who need a sole that withstands plant conditions and still maintains the appearance necessary for the office.

Gro-Cord Rubber Co., 816 N. Jackson St., Lima, Ohio (Item 8)

Movable Fire Wall

Development of an approved light-gauge steel, movable fire wall for use as an interior partition within industrial plants has been announced. Highly mobile, it can be moved quickly and saves time, and permits many rearrangements of assembly lines, machinery and equipment. It is constructed of 18 gauge steel with a four-inch incombustible gypsum board wall. The panels or wall sections are 2 ft. by 30 ft.



Assembly and disassembly are fast, and when erected presents a 5½ inch thick fire barrier that is easily maintained or painted. The manufacturer says the wall has been given a 2 hour and 35 minute fire rating by Factory-Mutual Laboratories, and will not affect fire code regulations and insurance rates.

Detroit Steel Products Co., 3559 Griffin St., Detroit 11, Mich. (Item 9)

Emergency Lantern

A new lantern with a long-lasting battery which is its own battery case has been developed. It is attached to a removable twin light head with two screw caps. One light is a sealed beam spotlight, and the other is a flashing red warning light. Incorporating two 6 volt batteries, the manufacturer says the "Radar-Lite" will last 2½ to 4 times longer than an ordinary single battery lan-

tern. Entirely sealed in steel, and leakproof, the light is useful for industry, home, car, and civil defense work, and is light in weight.

Burgess Battery Co., Freeport, Ill. (Item 10)

Boiler Pump Control, Cut-Off and Alarm

An adaptation of probe-type level control units as applied to industrial equipment has been announced. Economical and easily installed, this floatless type level control unit is designed for domestic and medium size commercial installation and requires 110 v.a.c. Any electrical hazard is eliminated by a reducing transformer contained in the sealed control box, according to the manufacturer.

Electrical hook-up is a four-prong plug and socket arrangement furnished with the unit. The vessel containing the probe is marked externally to show the low water level. The control and/or the alarm action is actuated only when the water level falls below the probe tip. The manufacturer says the unit is designed to act in a fail-safe manner. Where a controlled level range is required and the difference between the high-low levels does not exceed 6 inches, two probes are furnished in one vessel.

Techniflex Corporation, Port Jervis, N. Y. (Item 11)

Magnetic Conveyors

Called the "Space Saver," a Magnetic Conveyor has been developed.

This conveyor which conveys ferrous parts up inclines as steep as 90°, helps provide valuable extra floor space by making possible close grouping of machines. The machine will pick up ferrous pieces from floor level, which makes it practical for removing scrap from receiving pits. The "Space Saver" also automatically stacks flat ferrous pieces, feeds machines, and performs other handling operations formerly requiring manual effort. Available in either stationary or portable types, the manufacturer says that the conveyor will eliminate long conventional conveyors with gradual inclines.

The Homer Manufacturing Co., Department 199, Lima, Ohio. (Item 12)

Fire Extinguisher System

A new pressure-operated, carbon dioxide fire extinguishing system has been announced. The system operates on a rate-of-temperature-rise principle and employs carbon dioxide under pressure of 850 psi both for its power and as its fire extinguishing agent thus eliminating outside power.

Either flammable liquids or electrical equipment fires are controlled. Local heat actuators detect increased air pressure from heat, and transmit the pressure through controls to carbon dioxide cylinders where valves release the gas to the fire area, where the carbon dioxide reduces the oxygen in the air and smothers the fire. The gas is only released in the area of the fire.

The system can be adapted to close vents, dampers, shut-off machinery, etc., and sound alarms. Indicators show if the system is ready for action or has been discharged, and the entire system can be tested without discharging the cylinders. The gas cannot harm machinery or electrical equipment or damage work in progress, and is eventually absorbed into the atmosphere leaving no mess.

Walter Kidde & Co., Inc., 1020 Main St., Belleville 9, N. J. (Item 13)

Shower Door Panels

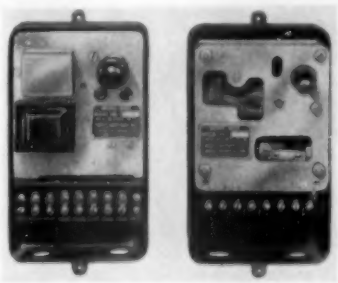
A shower door panel called "Series 300", has been developed. Available in many colors, the panels are smooth on one side and crinkled on the other. Employing shatterproof qualities, the panels are fire-resistant, will not crack, warp, buckle, sag, or rot, and are unaffected by humidity, water, sunlight, heat, or cold.

Made by combining resins and glass fibres under pressure, the panels can also be used for skylights, partitions, patios, awnings, etc.

Alsynite Co. of America, 4654 De Soto St., San Diego, Cal. (Item 14)

Combustion Safeguard System

The Twin Flame Combustion Safeguard System has been announced. Specifically designed for gas fired industrial equipment, the system, according to the manufacturer, has a low maintenance cost, and is easily installed. Utilization of



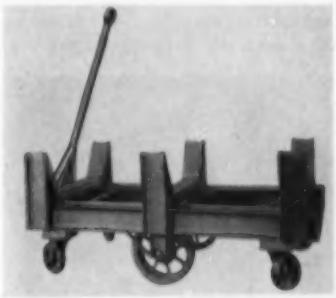
constant impinging flames to complete an electrical path in a voltage responsive system has eliminated flame rods and photo cells. Separate Programmer and Flame Detector Units provide economical, positive, and continuous flame supervision by flame itself. Multiple burner installation are also feasible. A feature of the system is simplicity of design which allows adaption to industrial gas burners and pilots currently employed.

Control Engineering Corp., 934 Washington St., Norwood, Mass. (Item 15)

Stock Carrier

A portable bar stock carrier, designed to permit heavy floor movement of bulk loads of raw materials or finished products, has been introduced.

The all-welded steel unit is composed basically of heavy channels with a heavy-duty tow bar welded to the base. It measures 4 ft. wide by 8 ft. 6 in. long. Design includes two 12 inch diameter rubber tired wheels, and four castered and rubber tired smaller wheels for easy maneuverability. All wheels are equipped with ball bearings. The bar stock carrier is produced in stand-



ard capacities of five and ten tons; however, it also is available in other capacities ranging from one to 20 tons.

Rack Engineering Co., 167 Sixth St., Connelsville, Pa. (Item 16)

Towel Dispener Kit

A towel dispenser kit designed to clamp on a waste receptacle has been announced. The kit consists of two paper towel dispensers permanently mounted to a bracket, and is easily clamped to the top of the waste receptacle. A screw driver is the only tool necessary for installation and no holes need be drilled.

Available in white enamel or chrome finish this dispenser feeds double or single fold towels from both sides, permitting twice as many people to obtain, use, and deposit paper towels. The twin towel dispenser kits eliminate steps from dispenser to receptacle and defacing of walls or tile.

Bennett Manufacturing Co., Alden, N. Y. (Item 17)

Industrial Glove

An industrial glove of flock-lined Neoprene has been introduced. The new Stanzoil NS-35 features a lining of thousands of tiny cotton particles bonded to the inside of the Neoprene outer glove. According to the manufacturer, besides giving the wearer a maximum amount of comfort without decreasing finger dexterity, the glove has an effective molded non-slip grip on fingers and

palm. The glove is suitable for assembly, inspection, parts handling, photography, polishing and painting operations, leather and textile processing, and laundry work.

Pioneer Rubber Co., 1939 Tiffin Road, Willard, Ohio. (Item 18)

Quiet Room

The "Quiet Room" has been developed to provide better production efficiency for supervisory and control personnel through the use of a quiet office. The manufacturer states the room is scientifically constructed with high noise reduction characteristics in all frequency bands.

The pre-fabricated room is especially made to serve as offices and recreation rooms in noisy areas, and is available in many sizes, and the dimensions in all directions can be changed at any time by the addition of standard panels.

Industrial Acoustics Co., Inc., 341 Jackson Ave., New York 54, N. Y. (Item 19)

Bandage Dispenser

A first aid dispenser pack containing 40 plastic adhesive bandages, has been designed. The bandages are oil-resistant, washable and waterproof; and the adhesive back is protected by polyethylene strips. The dispenser pack has a perforated section which, when removed, allows the bandages to be

taken from the bottom, one at a time, making them easy to obtain and allowing the remaining bandages to stay clean.

The pack is available individually or may be included along with other units in the manufacturer's first aid kits.

E. D. Bullard Co., 275 Eighth St., San Francisco 3, Cal. (Item 20)

Visual Aid Kit

A new fluorescent Visual Aid Kit for use in presenting lectures, demonstrations, sales talks, and educational features, has been introduced.

The 68-piece kit contains chalks, crayons, tempera colors, colored

yarns, assorted cardboards, invisible ink, mechanical pencil with invisible lead, grease pencils, which are activated by long wave ultra-violet lamps. Employing a third dimensional effect, the manufacturer states that the kit is valuable for map studies, sales charts, graphs, lectures, and in the school room. These visual aids may be purchased as a unit, or individually.

Ultra-Violet Products, Inc., 5114 Walnut Grove Ave., San Gabriel, Cal. (Item 21)

Pipe Jacketing

An aluminized pipe jacketing which is resistant to fire, acid and water, has been developed.

Made of aluminum foil laminated onto vapor-proofed asbestos cloth, it can be used to cover pipe insulation in heating, piping, refrigeration and air conditioning systems in electric utility and industrial plants and commercial and institutional buildings. Called Asbeston Pipe Insulation Jacketing, it requres no painting. The manufacturer says the aluminized jacketing is easily cleaned and does not absorb odors, properties which suit it for use in breweries, food processing plants and laboratories. According to the manufacturer, the material is light in weight compared to asbestos jacketing cloth now in general industrial use.

United States Rubber Co., Rockefeller Center, New York 20, N. Y. (Item 22)

Warning Light

A new type of emergency light for industrial plants has been announced. Called the "Hi-Ball", this light can be mounted to cover a wide area in any working space where an emergency might arise.

In combination with a horn or siren an instant alarm can be given with both sound and sight.

The manufacturer says the "Hi-Ball" plugs into any 120 volt A.C. outlet and requires no transformer, and that it is the most powerful light of its type. It employs a 1000 hour life bulb around which a silvered parabolic mirror in sharp focus is revolved at 50 r.p.m.'s. The heavy plastic dome can be supplied in red, blue, green, amber or clear.

Trippe Manufacturing Co., 218 N. Jefferson St., Chicago 6, Ill. (Item 23)

Galvanized Scaffolding

A new line in galvanized scaffolding has been announced. According to the manufacturer, because of the lubricating quality of the galvanizing, and elimination of the harmful work-deterring effects of rust, the galvanized scaffolding will permit faster erection.

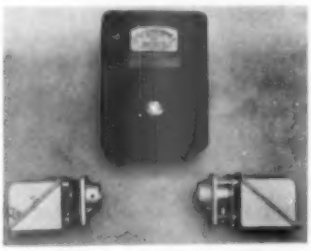
The galvanizing protection is applied to all panels, braces and component parts of scaffolding, and is silver-golden in color.

Universal Manufacturing Corp., Zelienople, Pa. (Item 24)

Smoke Density Indicator

Smoke Density Indicator System FE-3 is a new method for keeping smoke discharge within limits of smoke control and air pollution ordinances.

Designed for stability, simplicity of installation, and efficient operation, the system consists of a light source, photo electric scanner, and a smoke density indicator. The light beam is aimed directly at the lens



of the scanner. The density of smoke obscuring the light beam is measured in the smoke indicator in terms of both Smoke Density and Ringelmann number. An alarm may be preset at any smoke density. Any one of three Series 55 recorders may be used with the new indicator system to make continuous recording of smoke conditions over a 24 hour period.

Combustion Control Division of Electronic Corporation of America, 718 Beacon St., Boston 15, Mass. (Item 25)

Oil Absorbant

An all purpose absorbant for floors called Hi-Dri resists breakdown and provides protection against slipping and fire hazards according to the manufacturer. It absorbs solvents, water, acids, paints, chemicals, inks, etc., and is effective on wood, concrete, steel, compounds, and other types of flooring.

The manufacturer says that it eliminates slippery surfaces, and is harmless to handle, non-abrasive, fire-proof, and is approved by Underwriters Laboratories.

Hi-Dri helps reduce fire hazards and eliminates flammable cleaning compounds.

The product is spread, left until saturated and swept with a broom, leaving no slick, and will not stop traffic while on the floor.

Waverly Petroleum Products Co., 1724 Chestnut St., Philadelphia 3, Pa. (Item 26)

Helicopter Rotor Lamp

A lamp capable of withstanding forces of 1000 times the force of gravity has been developed for the high centrifugal force of blade tips on helicopters.

Producing about 35 candlepower, and increased approximately nine times by reflectors, the lamp has closely spaced, rigidly supported filament wires.

A 12 volt lamp, a resistance cable in the blade drops the 28 volt helicopter system to the required level.

Due to the unusual flying capabilities of helicopters, air safety is especially important, and the lamp will readily show the movements of the helicopter up to distances of 5 miles. By switching green and red lights in blade tips, experiments show green arcs on the right side and red arcs on the left side while in flight.

Westinghouse Electric Corp., 401 Liberty Ave., Box 2278, Pittsburgh 30, Pa. (Item 27)

Bottle Breaker

The Safeway Bottle Breaker has been announced. Consisting of a trip-hammer bottle destroying unit, and a selection of disposal containers, it is described as a safe, sanitary, compact, space and time saving device.

It is used to eliminate bottles with traces of poisonous contents, those that attract insects and rodents, and many other bottle hazards.

The manufacturer says it is accident-proof in its design and usage, and is available in metal containers for industrial and commercial use, and in rustic wooden barrel containers for domestic use. The bottle breaker unit is metal.

Frank-Dane, Inc., 1800 E. Forrest, Detroit 7, Mich. (Item 28)

Guy Wire Protector

A guy wire protector has been developed to reduce accidents involving guy wires.

The protector has two bright red luminous areas that serve as warning signals during the day and that reflect illumination at night.

The protectors are metal shields that cover guy wires extending to the ground level from the poles erected by electric and telephone companies. Because of the larger area of the protector than that of a bare guy wire, the manufacturer says, the protectors are more visible than the wires themselves and are

less likely to be tripped over. Also they cover ends of the wire that might cause injury. The luminous areas on the protector, called the "Glo-Guard", will aid in reducing the possibility of injuries to pedestrians, and to prevent possible damage to the protectors themselves.

Hubbard & Co., Pittsburgh 1, Pa. (Item 29)

Ladder Extension Platform

A 12 inch extension platform has been developed that enables operators to do maintenance work at a 14 ft. level. Used with a ladder-truck, the platform is constructed of light weight aluminum with a Gripstrut step surface and weighs only 6½ pounds. A locking device, attached

to the top step, prevents danger of slipping or tipping. When not in use, the platform can be detached and stored in the ladder-truck.

Safe-Lad Manufacturing Co., 1001 S. E. Morrison, Portland 14, Ore. (Item 30)

Transfer Mask

To meet the need for continuous respiratory protection in movement from one plant air connection to another, the Full-Vision Transfer Mask has been developed.

According to the manufacturer, this equipment uses compressed air when wearer is connected to such

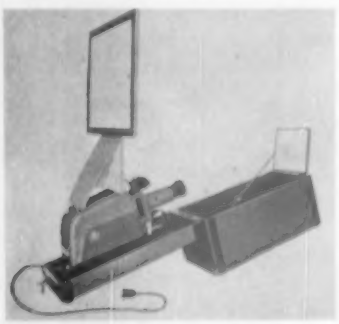
supply, and, automatically transfers to the canister for protection if (1) the compressed air supply is shut off; (2) the hose is cut or kinked; or (3) wearer wants to move to another location or compressed air plug-in station.

The use of a combination of standard valve in the canister and a synchronized "T" valve connected at the junction of the face piece and hoses makes this possible.

Acme Protection Equipment Co., 1209 Kalamazoo St., South Haven, Mich. (Item 31)

Rear Screen Projector

For use in visual aids, the Soundview Rear Screen unit has been announced. It can be used with any Soundview Projector Model PS-43, PS-63, and PS-65F. The unit sits on any small flat surface and presents a clearly defined image from



any angle in a brightly lighted room. It contains a folded easel type screen, picture image size 11″ x 14″ and has room for a slide carrier and extra lens. The overall size of the unit is 8″ x 18″ x 10″ and weighs 9 pounds.

Automatic Projection Corporation, 282 Seventh Ave., New York 1, N. Y. (Item 32)

Safety Arm Assembly

According to the manufacturer, a method of designing and hanging doors that eliminates catching fingers in openings has been developed. The apparatus, a safety arm assembly that prevents physical injury by minimizing the pivot space in door openings and closures is called the Pittco Safety Door Check Arm Assembly. It is installed in such a way that it reduces the standard pivot distance between door frame from 2⅝ inches to ⅜ inch.

Especially advantageous for entrances used by children, it is designed for center hung and offset checking floor hinges, and may be used with metal, glass, and heavy doors of all types.

Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa. (Item 33)

Wet-Dry Vacuum Cleaner

A seven-gallon capacity wet and dry pick-up vacuum cleaner weighing 20 pounds has been announced.

Called Model VA-7, it has a 55 inch water life, and is designed for small plants, office buildings, etc., where a low-cost cleaner for wet and dry use is needed.

The equipment inludes: 10 ft. of 1-inch hose with a swivel at each end, rug tool, crevice tool, 14 inch floor brush, extension handle, and double action squeegee. The tank is rust and corrosion proof and will not allow the motor to flood. The electric motor, according to the manufacturer, is Underwriters Laboratories approved, and is 115 volt, 1 H.P., self lubricating and sealed. A rubber bumper attached to the cleaner is non-marking.

Holt Manufacturing Co., 669 - 20th St., Oakland 12, Cal. (Item 34)

News Items

E. Weldon Schumacher has been elected president of American Optical Co., by the Board of Trustees. Mr. Schumacher has been affiliated with American Optical Co. since 1938. A graduate of Carnegie Institute of Technology and Harvard Graduate School of Business Administration, he was with the Ames Textile Company prior to joining American Optical Company. While with the American Optical Company he has been general manufacturing manager, vice president for operations, and a trustee of the company. He is a director of American Optical Company, Canada, Ltd., Public Service Corporation of Vermont, and of Associated Industries of Massachusetts.

Walter J. Drees and Boone Gross have been added to the Board of Trustees of American Optical Co. Mr. Drees is vice president for finance and treasurer of American Optical Co., and Mr. Gross is president of Gillette Safety Razor Co.

* * *

James P. Kendrick has been appointed sales engineer for the territory of Peru, Bolivia and Chili for

Mine Safety Appliances of Pittsburgh, Pa. A graduate of Southern Methodist University, he recently finished Mine Safety's training course for safety engineers. Mr. Kendrick will reside in Lima, Peru.

* * *

H. H. Warren has been appointed Assistant Sales Manager of Exide Industrial Division of the Electric Storage Battery Co. Mr. Warren has been associated with the company since 1921 and has been a radio dealer battery salesman, an in-

dustrial products salesman, and became Assistant Manager of the New York Branch Sales Office in 1948. He will be located in the headquarters in the General Offices in New York.

Robert W. Goode has recently been announced as the Works Manager of the Petersen Engineering Co., Santa Clara, Cal. Mr. Goode was formerly the General Foreman

of the BE-GE Mfg. Co. of Gilroy, Cal. He is an experience machinist, tool maker and shop manager, and is a native of the San Francisco Bay area.

* * *

Willson Products, Inc., has announced the election of J. Clyde Ryan, as president and general manager of the company. Willson Products was recently purchased by Ray-O-Vac Co. of Madison, Wis. Mr. Ryan was executive vice-president of the Ray-O-Vac Company. Thomas A. Willson, Jr., was elected vice-president in charge of production. Other officers elected are: Wm. C. Weeks, vice president in charge of sales; F. Saul Stump, secretary-treasurer; A. C. Morgenson, assistant treasurer; and G. C. Guild, assistant secretary.

* * *

Glenn J. Christner, Vice-president of the Eagle-Picher Co., has announced the appointment of Pascal M. Rapier as Process Engineer at the company's Clark, Nevada plant. Prior to his Eagle-Picher appointment, Mr. Rapier was affiliated with the Great Lakes Carbon Corporation. A graduate of Georgia Tech University, Mr. Rapier will be active in the developing and processing of diatomaceous earth and filter aids.

* * *

James A. Arter has been appointed Vice President in Charge of Manufacturing for Ampco Metal,

Inc., Milwaukee, Wis., according to an announcement made by J. D. Zaiser, President of the company. Since 1937 Mr. Arter has held various managerial positions. In his new assignment he will have direction of all phases of the company's manufacturing operations. E. E. Jagmin will continue as General Superintendent in Charge of Production.

* * *

J. P. Henry has been appointed General Sales Manager of Ampco Metal, Inc., Milwaukee, Wis. Mr. Henry has been associated with Ampco in various sales capacities since 1940 and has been manager of

the New England Sales District, Zone Manager for the Eastern Sales Area, and has been Assistant General Sales Manager since 1948.

R. J. Severson has been announced as the Assistant General Sales Manager of Ampco Metal. Mr. Severson has been with Ampco since 1943 and has served in various man-

agerial capacities both in sales and production, and during the past several years has been in charge of all sales which involve technical problems.

* * *

The New York District Office and Warehouse of Leschen Wire Rope Division of H. K. Porter Co., Inc., has been moved to 219 Emmet St., Newark, N. J. The new location is very convenient to Metropolitan New York.

Leschen Wire Rope Division has also announced the appointment of Ted W. Peterson as District Sales Representative for the states of Minnesota, Wisconsin, Eastern Iowa, North Dakota and the Upper Peninsula of Michigan. Prior to his appointment, Mr. Peterson was a distributor salesman in the same territory in the wire rope field.

* * *

Wm. C. McCoy has been appointed Technical Director of the Fyr-Larm Co., Inc., of Summit, N. J. A member of the Nassau-Suffolk Safety Council, Mr. McCoy joined the Mitchell Air Force Base Fire Department in 1942. He re-

turned to the Mitchell staff following World War II Military Service and was assigned as Assistant Chief of the Base Fire Department. He subsequently served with the First Air Force as fire protection and fire prevention engineer. He was a charter member of the Garden City Park Exempt Firemen's Association and is currently a member of the Northport Fire Department.

In his new post, Mr. McCoy will direct technical activities of the Fyr-Larm Co., Inc., manufacturer of self-powered automatic fire alarms for use in residential, industrial and institutional type buildings.

* * *

The appointment of Paul R. Grossman as Director of Research for the Babcock & Wilcox Company at its research center in Alliance, Ohio, has been announced by M. Nielsen, Executive Vice President of the Company. Mr. Grossman joined Babcock & Wilcox in 1936 after graduation from Case Institute of

Technology. He has worked as a draftsman and in field service and boiler testing work, and in 1951 was appointed superintendent of the Products Development Section and in 1954 was announced Chief Research Engineer. Mr. Grossman is a member of the American Society of Mechanical Engineers.

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WELDED STEEL SAFETY LADDERS
For Filing Rooms—Stock Rooms—Vaults

SAFE • STRONG • EASY TO MOVE • EASY TO CLIMB • NON-SKID STEPS

48"—8 Step

New improved design now being made from 1" diam. round furniture tubing.

Mounted on Swivel Brake Casters which allow the ladder to be rolled freely when no one is on it. When you step on the ladder the rubber cushioned legs rest on the floor and prevent rolling.

Made in 7 heights: — 18" 2 Step, 27" 3 Step, 36" 4 Step, 45" 5 Step, 54" 6 Step, 63" 7 Step, 72" 8 Step.

All are made in 18", 28" or 24" width. Send for Circular No. 53-N and prices on these ladders and our full line of Wood Rolling Ladders.

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MOSQUITOES, ticks, chiggers, *all* biting insects have no place to land when your workers use PELLENT. Three types: *Ointment* for regular use . . . *Cream* that won't sweat out, only soap and water will remove . . . *Spray* for clothing. PELLENT does not stain . . . lasts for hours! Unit 204A Ointment (6¼ oz.) . . . $0.60, Unit 205AA Cream (2 oz. plastic) . . . $1.00, No. 320 Pellent Spray (5 oz.) . . . $1.00. Order from your MSco distributor today.

MSCO

MEDICAL SUPPLY COMPANY

Rockford, Ill., In Canada, it's Safety Supply Co.

Green Cross News

—*From page 49*

Kuhta New Manager at Fresno

Matthew A. Kuhta of Modesto, Calif., has been employed as administrator of the Fresno County Safety Council to succeed Walter C. Lunsford, who resigned recently to join the field staff of the Inter-Industry Committee. Kuhta assisted in the organizing of the Modesto Safety Council and worked as a safety engineer at the Norris Thermador Corp., from 1952 to 1955. He has also been employed in industrial plants as a supervisor. Kuhta has three years of college training as a mechanical engineer, and served as conference leader in courses of supervision and management at the Modesto Evening College.

3,000 Attend Michigan Meet

Approximately 3,000 persons interested in various fields of accident prevention attended the 25th Annual Michigan Safety Conference held in Grand Rapids in late April. Nicholas Kelley, Jr., Chrysler Corporation executive and chairman of the Board of The Traffic Safety Association of Detroit was president of the 1955 Conference. Edgar L. Harden, dean of Continuing Education, Michigan State College, was the banquet speaker.

The President's Medal

Awards made by the National Safety Council for successful application of artificial respiration

A. G. WHITMAN, assistant drilling foreman, The Texas Company, Glendive, Mont. — gas asphyxiation.

HENRY F. LEWMAN, line helper, Department of Water and Power, City of Los Angeles, Woodland Hills, Calif.—electric shock. Certificate of Assistance to JAMES F. STAMBACK.

NO PLANT GROWTH
WHEN YOU USE
DOLGE
SS WEED-KILLER

For areas where you want ALL unsightly, fire-inviting weeds and grasses eliminated, such as railroad sidings, along fences and abutments, parking lots, drives and walks. An economical solution of SS Weed-Killer kills plants and seeds on contact, then works down through the soil, killing roots and sterilizing surrounding earth—affording freedom from weeds for as much as an entire year!

Scientific chemical weed control literature on request.

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Safety Campaign Kit

600 COLORFUL SAFETY RIBBONS
Imprinted with Catchy Safety Slogans

50 each of 12 different illustrated safety slogans. Guaranteed action: If you don't find at least one use for these attractive 6" x 2" ribbons in 30 days return them and get your money back. Pins included or self-adhering fasteners for sticking to letters and bulletin boards.

PRICE COMPLETE $40.00

New Book!
"A Guide to Safety Promotion"

Jam-packed with safety campaign plans and ideas. Contents include: How to plan safety campaigns; How to run a safety contest; Safety novelties, gimmicks, etc. Write for your copy now.

Organization Services
10200 Grand River—Detroit 4, Mich.

TRADE PUBLICATIONS

These trade publications will keep you up-to-the-minute on new developments in safety equipment and health products. All catalogs are free, and will be sent without obligation. Just circle publication number on the Reader Service Postcard.

1. **Floor Maintenance:** Illustrated, 4-page folder describes products designed to aid efficient floor care. Lists combination, scrubber-vac machines, conventional scrubbing-polishing machines, steel-wool pads, applicators, vacuum cleaners, mop trucks and other mopping equipment, and a carry all for transporting cleaning supplies and equipment. The folder also lists waxes, sealers, and cleansers, and gives recommendations for use and packaging information. Finnell System, Inc.

2. **Eye and Face Safeguards:** Catalog No. 32, 64-pages, illustrates goggles, welding helmets, lenses and plates, safety shields, respirators, etc. Over 200 items are shown, along with descriptions and prices. Sellstrom Manufacturing Co.

3. **Fire Fighters:** This 16-pager describes a line of high-pressure fog equipment that fights fires by cooling, smothering, and isolating—using less water. Includes light and heavy-duty stationary and portable units; fire truck. John Bean Div.

4. **Hand Pump:** Crank-operated rotary design mounts on drum or tank to dispense petroleum products, solvents, other liquids. Bulletin 320, 4 pages. Blackmer Pump Co.

5. **Guards and Guides:** Folder describes a combination guard and guide unit for table saws with 6-16-inch blades, contains instructions for use in 9 operations. Also describes guard to fit 30- to 36-inch metal cutting shears. Brett-Guard Co.

6. **Mercury Vapor Detection:** A new folder describing a line of mercury vapor meters for detecting toxic concentrations of mercury vapor in plant and laboratory atmospheres. Folder gives information on the type of meter to use for detecting concentrations beyond the toxic limit, for detecting sources of contamination, and for sounding an alarm when toxic limits are exceeded. Harold Kruger Instruments.

7. **Floor Maintenance:** For all types of floor cleaning, sealing, waxing, polishing, see this 8-pager describing materials and equipment. Company also offers consultation service on floor maintenance. Masury-Young Co.

8. **Audiometer:** Bulletin tells how audiometer enables plants to conduct their own hearing tests. The portable Beltone instrument is easy to operate, weighs only 14 pounds, maker says. May be used to test individuals, or groups of up to 40 simultaneously. Beltone Hearing Aid Co.

9. **Fire Protection:** Four catalogs tell how to select extinguisher systems, and describes maker's pressure-operated carbon dioxide systems rate-of-rise and automatic electric types, and portable units. Walter Kidde & Co.

10. **Safety Gratings:** Bulletin No. 2486 describes the types, sizes and load characteristics of the complete line of electroforged steel and interlocked aluminum grating manufactured by company. Shown are gratings for platforms, ramps, stairs, flooring, etc. Blaw-Knox Company.

11. **Electrical Connectors:** Synthetic rubber plugs, receptacles and portable cable assemblies are described in the 12-page illustrated bulletin No. B59. It covers round and oval plugs and receptacles, lamp sockets, distribution centers. Joy Manufacturing Co.

12. **Fire Fighting Equipment:** 12-page catalog covers fog and foam nozzles and related equipment for hoses, trucks and other portable equipment. Includes tubes, nozzles, extension units, valves, shut-offs, and adapters. Rockwood Sprinkler Co.

13. **Safety Equipment:** 8-page catalog illustrates hand guards, protective aprons, tool holsters, etc., all made of leather. Also of interest is Sprazon belt dressing, a new way to dress transmission belting efficiently while the belt is running without endangering the operator's hand. Full dimensions of all equipment plus a price list included. Graton and Knight Co.

14. **Scaffolds and Ladders:** 8-page catalog illustrates and describes steel scaffolds, scaffold brackets, aluminum or wood ladders, disappearing stairways, auto-top carriers, tarpaulins and rope, roof hooks, etc. Newark Ladder & Bracket Co., Inc.

15. **Fans and Heaters:** Two catalogs are offered. No. 1130 has 18 pages of material on cast iron industrial fans, their performance and dimensions, and No. 1521 describes space heaters, their advantages and performance. Sturtevant Division of Westinghouse Electric Corp.

16. **Fire Extinguishers:** In this 20-page bulletin you'll find all types of dry-chemical fire extinguishing equipment. Information, specifications, and chemicals—plus table for comparing all types of extinguishers. Ansul Chemical Co.

17. **Sweatband:** Bulletin discusses a cellulose headband designed to absorb perspiration and keep worker cool by rapid evaporation of the moisture. The band fits any size head and may be washed and sterilized repeatedly without losing its porosity. Free sample included. American Allsafe Co., Inc.

18. Head and Eye Protection: Catalog S-55, contains a complete line of goggles, lenses, helmets, face shields, and respirators. Contains specifications of equipment; component parts pictured and described. Dockson Corp.

19. Emergency Light: This 16-page catalog No. 9 shows how to prevent sudden lighting failures in factories, stairways, switchboards, engine rooms, stores or places of public assembly by using a battery-powered emergency light. The unit is plugged into the lighting circuit, and when the normal current fails, the emergency light is automatically turned on. Electric Cord Co.

20. "Construction by Adhesion": Is the title of this 8-pager. Covers adhesives for tile, fastenings for insulation, and protective coatings. Specifications, application hints, tables of product properties. Miracle Adhesives Corp.

21. Safety Products: Catalog 11 covers equipment for first aid, respiratory protection, electrical safety. Shows combustible and toxic gas instruments, other general safety devices. 54 pages. Davis Emergency Equipment Co.

22. Fluorescent Guard and Guide: Data sheet describes a device that prevents lamps (40- and 100-watt) from falling from sockets, despite heavy vibration or spreading of sockets. Steers lamp into sockets; permits easy replacement. Gets-A-Lite Co.

23. Automatic Spray Sprinklers: Three systems are explained—wet-pipe, dry-pipe, and deluge for hazardous areas. Includes descriptions, and cross-sections of basic types of sprinkler heads. Tells of maker's inspection service. Grinnell Co.

24. Safety Electrification: Insul-8 Bare Bar (non-insulated) conductors for supplying mobile power to cranes and monorails are described in this catalog No. B8-55. Engineering drawings showing installations included. Insul-8 Corp.

25. Safety Vise: 4-page bulletin describes and illustrates a safety vise that makes drill press operation fast-safe-easy. Various models included with table size and vise capacity. Peters Manufacturing Co.

26. Safety Signs: Bulletin illustrates a completely new type of sign which gives two safety messages within one space. The animations are achieved by the use of countless plastic linear lenses which separate the multiple images laminated behind them, permitting a different safety message to change continuously as you change your angle of view. Irwin-Hodson Co.

27. Safety Gratings: A 16-page data and specification manual covering all types of grating, open steel floor armor, stair treads, vessel liners, bridge decking and drain grates. The publication contains safe load tables, panel width constant charts, tables on standard widths and types of steel stair treads most frequently used, etc. Kelmp Metal Grating Corp.

28. Concrete Floors: 24-page booklet describes method of combining a concrete base with a metallic aggregate surface to produce an especially wear-resistant flooring. Close-up photos point up many advantages. Master Builders Co.

29. Scaffolds: 12-page bulletin describes a line of tubular steel scaffolding, made of prefabricated parts that are completely interchangeable and can be assembled without tools. Photos of typical and special applications. Patent Scaffolding Co.

30. Electrical Tools: This 84-page catalog (No. 50 revised) shows you numerous cutters, pliers, clamps, wrenches, and other tools useful in electrical maintenance work. Tells you how to use. Mathias Klein & Sons.

31. Cleaning and Maintenance: Here are three helpful pocket-size booklets: "Plant Maintenance Cleaning Guide" (12 pages), "How to Clean and Maintain Air Conditioning" (24 pages), and "Power Plant Cleaning" (44 pages). Oakite Products, Inc.

32. Punch Press Guards: Various types of metal and plastic guards shown in bulletin such as basket guards, non-repeat mechanism, end zone barrier, and single and double sweep guards. Searjeant Metal Products, Inc.

33. Slings and Fittings: Catalog contains detailed information on wire rope slings. Contents include general classification of slings, instructions for ordering, types of end fittings and the proper way for attaching, and sizings of wire rope ends. Bethlehem Steel Co.

34. Container for Flammable Liquids: Bench cans, plunger cans, machine bench cans, manual and automatic wash tanks and foot operated dip tanks for use with volatile or flammable liquids pictured and discussed in bulletin. Protectoseal Co.

35. Safety Tanks: A line of fuel tanks for vehicles shown in bulletin. Crash resistance, spillproof qualities, and the fact that tanks are non-explosive in fires featured. Available with various accessories and in various sizes and mountings. Schematic diagrams show construction, approved by Underwriters' Laboratories and meets ICC regulations. American Safety Tank Co.

36. Safety Signs: This catalog covers a line of metal safety warning, instruction and information signs. Included is a section devoted to paper tags for marking dangerous machines, hot wires, open lines, etc. The visibility and length of life of the signs is discussed, and sample signs are illustrated. Standard Signs, Inc.

37. Anti-Fogging Liquid: An anti-fogging liquid that forms an invisible coating which resists formation of fog or moisture on lens surfaces is described and pictured. The liquid is said to prevent fogged goggles under severe conditions of hot steaming vapors, freezing temperatures, humid summer heat or body perspiration. It can be used on glass or plastic materials. Wilkins Co.

38. Quiet Room: A circular describing the new quiet room designed for offices and noisy areas in plants and recreation rooms. Bulletin gives full details on construction etc. Industrial Acoustics Co.

39. "Antiseptic Soaps for Industrial Use": This booklet is based on studies of industrial dermatitis, discusses the different cause of this ailment and presents a preventive program employing the use of industrial soaps. Armour and Co.

40. Traffic Mirrors: Bulletin describes traffic safety mirrors that reflect cross-movement of oncoming floor traffic around blind corners, on loading docks, in aisles in plants or at exits and entrances. Silver Troy Co.

41. "Color Dynamics": An illustrated booklet explaining how the proper use of color in plants can be the direct cause of more production, less absenteeism, lower insurance

rates, and better morale among employees. Also demonstrates how greater safety is also attributed to color harmony. Pittsburgh Plate Glass Co.

42. Bulletin Board: Bulletin shows cork back bulletin board with or without changeable letter insert for industrial use. Dimensions listed. Available in metal or wood and in various colors. A. C. Davenport & Son, Inc.

43. Sirens and Lights: Folder features a line of sirens and lights for emergency vehicles. Sirens available with rotating or flashing light for visual warning as well as audible. Emergency lights also include flashing and rotating beams, and double beams for mounting on vehicles. Specifications listed on all products. Federal Sign & Signal Corp.

44. Steel Flooring: 20-page booklet discusses a rolled steel flooring with a raised lug pattern to provide traction for wheels and feet. Specifications given and examples of use shown; such as, industrial flooring, loading ramps, machinery platforms, steps, etc. Do it yourself drawings included. Inland Steel Co.

45. Conductivity Meter: Bulletin describes an instrument for measuring the conductivity of flooring, personnel and equipment, in accordance with N.F.P.A. recommendations. Suitable for ordnance, chemical, paint and refinery plants or where static electricity may be a hazard. Conductive Hospital Accessories Corp.

46. New Awards Catalog: New 36-page Industrial Awards and Incentives catalog features the new Green-Cross plaque for ideas for promoting safety programs in the plant or office. Williams Jewelry & Manufacturing Co.

47. Welding Safety: Recommended safety practices in oxyacetylene and arc cutting and welding are offered in 32-page booklet. Illustrated, it details rules for personnel safety, the handling and maintenance of equipment and safe practices in setting up, using, adjusting and shutting down equipment. Air Reduction Sales Co.

48. Safety Spectacles: 4-page folder illustrates modern styled safety spectacles incorporating a new safety lens material. The bulletin features colored spectacles in styles suitable for both men and women, with corrective and protective lenses. United States Safety Service Co.

49. Eye Washfountains: Literature illustrates and details several models of eye washfountains and emergency showers. Designed for installation in work areas, the fountains furnish immediate first-aid and can be pedal-operated, even by a temporarily blinded worker. Haws Drinking Faucet Co.

50. Welders and Chippers Goggles: 4-page, 2-color bulletin illustrates and describes three types of welder's goggles and chipper's goggles with improved ventilating systems that prevent fogging and at the same time lock out harmful infra-red and ultra-violet rays. Glendale Optical Co.

51. Skin Cleaners: This 4-page bulletin describes and illustrates light types of powdered soaps with suitable areas of application, and also gives data on bar and liquid soaps and dispensers. Lightfoot Schultz Co.

52. Skin Protector and Cleaner: 2-page bulletin describes a combination skin cream and cleanser for protection against industrial dermatitis. When applied before exposure, the cream shields the skin against irritants and forms a detergent lather at wash-up time. Also discussed are industrial irritants and typical users. Chemical Corp.

53. "What Your Plan Can Accomplish with Vion Screening": A brochure on an occupational visual testing device. It shows how visual ability is a production factor, which employees need corrective lenses, and the effect of inadequate vision as a cause of accidents. Keystone View Co.

54. Use of Mercurochrome for First Aid: Literature tells of the practical uses of mercurochrome for industrial first aid treatment of wounds. Hynson, Westcott & Dunning, Inc.

55. "Guardsman" Watchclock Systems: Bulletin describes how the "Guardsman" watchclock systems keeps your watchman on the alert. The watchclock system gives you a minute-by-minute record of your watchman's activities, day and night. Detex Watchclock Corp.

56. Graphic Facts: 16-page brochure describes how to get your ideas across by using the Chart-Pak method of prefabricated charting of statistical charts, organization charts, and office layouts. Chart-Pak, Inc.

You Can't Fall
IT'S A LIFE SAVER

IT LOCKS—IT HOLDS

SAFETY DEVICE FOR LADDERS

Prevents death and injuries from falling.

Inexpensive: Easy to install. Clamps to ladder rung or structures with peg steps or framework, etc. No welding or cutting.
Automatic: Positive. Will catch workman if he starts to fall even if unconscious.
Simple to operate: No upkeep. Requires no attention from climber.
Notched rail **hot dipped galvanized.** Entire equipment rust and corrosion proof.
In use throughout country and abroad for approx. 6 years.

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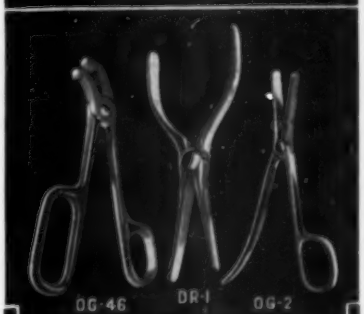

SAVE fingers, eyes and dies! Get Osborn Safety Pliers . . . made of Osmolloy, the sturdy, long lived aluminum alloy that will flatten under impact, leaving dies unhurt. Thousands now in use. Write for literature!

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WARSAW ★ INDIANA

Traffic SAFETY MIRROR
• Eliminate traffic accidents at blind corners inside and outside your plant —also at loading platforms.
• Traffic Safety Mirrors are available in convex or flat glass.
• Mirrors are easily installed and adjustable
WRITE FOR FOLDER and PRICES
ROUND CONVEX MIRROR SIZES
13" • 18"
26" • 36"
FLAT RECTANGLE MIRROR SIZES
6" x 14"
14" x 18"
SILVER TROY Company
Mfgrs. of Specialty Mirrors for Industrial Use
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STOP THAT FALL

Safety Lifeline Lock

FOR SCAFFOLDS AND SWINGS

Locks automatically, instantly. Slips onto lifeline rope. Moveable up or down with man. Instant locking position at all times, whether stationary or being moved up or down.

Snaps into safety belt: No adjusting. Inexpensive. Over-all length approx. 13". Does not harm rope. Weight: approx. 5 lbs.

Recommended for use on standard ¾" or ⅞" Manila rope.

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Here's how it works—

Printed below are two identical Reader Service postcards—the bottom one for your use; the top one for later readers of this issue. The numbers listed on each card are keyed to product advertised and the new safety equipment and trade publications described on pages 119 through 129. Just circle the items you want to know more about, and we will ask the manufacturer to send you full information without obligation. Both cards are perforated for easy removal, and no postage is required.

New Safety Equipment

Products featured in this section have been carefully reviewed by Council engineers so as to bring you only what's new and reliable in the safety field. Only new safety and health products, or newsworthy improvements in existing equipment are eligible for listing.

Trade Publications

Here's a wealth of helpful trade literature — catalogs, spec sheets, booklets, brochures — that will help you compare before you buy. Whether you are in the market now, or think you may be at a later date, you'll want these valuable references in your safety equipment data file.

Products Advertised

As you read through this issue of the NEWS, you will find advertisements describing equipment that may help you solve some of your accident problems. Instead of making a "mental note," make sure you get full information by circling the corresponding page number on the Reader Service postcard. The letters L, R, T and B locate the ads on the page—left, right, top and bottom. IFC—inside front cover; IBC—inside back cover; BC—back cover.

IMPORTANT—Be sure to fill in your name, organization and address in the space provided on this side of the postcard.

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JULY, 1955
(Good until October 31, 1955)

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129T	129B	130T	130B	IBC	BC							

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The advertising pages of the News

. . . your guide to reliable suppliers of worthwhile safety equipment

The advertising policy of the NEWS requires that all equipment and products meet established codes and standards, have the approval of recognized testing agencies, or have proven their value through actual use in industry. Council engineers and technicians screen every advertisement to make sure that product description is accurate, and performance claims verified by reliable sources. It should not be construed, however, that products advertised are approved or endorsed by the National Safety Council.

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Before you mail your Reader Service postcard . . .

TAKE ANOTHER LOOK AT

- the ADVERTISING pages
- the NEW SAFETY EQUIPMENT section
- the TRADE PUBLICATION section

Make sure all the items you want to know more about are circled . . . check to make sure your name, organization, and address are printed on the reverse side of the postcard . . . THEN mail it today.

CESCO

Auxiliary Filters

PREVENT CLOGGING OF CARTRIDGES

Auxiliary cellulose filters, now available for the CESCO No. 99 ORGANIC VAPOR RESPIRATOR, prevent the clogging of cartridges during paint spraying operations. Together with the dual 85 cc cartridges they provide high absorptive capacity and low resistance to breathing.

These low-priced filters are easily attached by merely unscrewing the cartridge retaining ring. Filter pad and retainer are placed over cartridge, and ring is screwed back on. It's quick, and no tools are required.

The "double-duty" CESCO No. 99 Respirator has a soft rubber facepiece which provides a snug, leakproof fit with minimum headband tension. Eye protection may be worn conveniently as the respirator sets low on the face.

Order from your nearby CESCO safety equipment distributor or write us for further information.

CHICAGO EYE SHIELD COMPANY · 2306 Warren Boulevard, Chicago 12, Illinois

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All-Plastic Goggles

NEW AO† LIGHTWEIGHT, SPECTACLE GOGGLES PROVIDE COMPLETE INTERCHANGE OF LENSES AND TEMPLES!

Illustrated are Nos. 786 and 787 — two of the latest and lightest AO All-Plastic Lens Goggles, with noncorrosive endpieces and metal skull temples. In the field of lightweight eyecare they show the same benefits of applied engineering as AO's goggles for heavier exposures.

Lenses, endpieces, and temples can be easily replaced or assembled. One-piece lenses of either clear or green acetate have high impact resistance. Replacement is simple — just slide off the endpieces and re-assemble. No. 786 is ideal for use over regular spectacles for temporary or "on and off" wear. Model 787 is identical except that it has side shields for added protection against laterally flying particles. Both of these goggles are available with comfort cable temples upon request.

Recommended Uses

(1) For light grinding, light machining, spot welding, woodworking, yard work where dust hazards exist, and for protecting Ⓡ Safety Glasses or regular glasses.

(2) For plant visitors and others who may be exposed to eye hazards for short periods.

Keep an adequate supply of these goggles (and extra lenses) on hand always for good fitting. Check with your nearest AO Safety Products Representative.

AO SWEATBANDS in hot weather (and on hot jobs) keep production UP, accidents DOWN. Keep a supply on hand!

American Optical
SAFETY PRODUCTS DIVISION

†T.M. Reg. by American Optical Company

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